CURRICULUM VITAE - Prof. Asher Yahalom

Date Updated: 23/12/22

Faculty: Engineering

Department: Electrical & Electronic Engineering.

Web: https://www.researchgate.net/profile/Asher_Yahalom

1. PERSONAL DATA

E-mail: asya@ariel.ac.il

Status: Married to Hadass (a Judge, president of the labor court in Tel-Aviv) + 3

Military Service: 1986-1989 Regular Service - Staff-Sergeant, 1989-2008 Reserve, Infantry – Company Sergeant-Major, Second Lebanese War Decoration 2007, Lebanese Security Zone Campaign Decoration 2021.

2. EDUCATION

Degree	Subject	University	Year	Thesis Supervisor	Thesis title
B. Sc	Physics & Mathematics	Hebrew University	1986-1990		
M.Sc.	Physics	Hebrew University	1990-1991	Prof. J. Katz	On the Effective Potential of a Stationary Flow with Given Circulation's
PhD	Physics	Hebrew University	1992-1996	Prof. J. Katz	Energy Principles for Barotropic Flows with Applications to Gaseous Disks

3. POSITIONS IN ACADEMIC INSTITUTIONS

Dates	University	Position	%
1990-1995	Hebrew University	Assistant Teacher and Laboratory Instructor	100
1998-1999	Tel-Aviv University	Post-Doctoral Fellow	100
1999-2007 2007-2012 2013-	College of Judea & Samaria Ariel University Center of Samaria Ariel University	Academic Director: FEL Radiation User Center	25
1999-2001	College of Judea & Samaria	Lecturer	100
2000	Tel-Aviv University	Research Associate	25
2001-2006	College of Judea & Samaria	Senior Lecturer	100
2002	Tel-Aviv University	Research Associate	20
2002-2003	Neeman Institute, Technion	Research Associate	20
2004	College of Judea & Samaria	Tenure	
2004-2005	College of Judea & Samaria	Associate Head of the Department of Electronic & Electrical Engineering	
2005-2006	University of Cambridge Cambridge, UK	Senior Academic Visitor	100
2006 -2007 2007-2012	College of Judea & Samaria Ariel University Center of Samaria	Associate Professor	100
2008	University of Cambridge Cambridge, UK	Visiting Professor	16
2012	Newton Institute, Cambridge, UK	Visiting Fellow	50
2013-	Ariel University	Full Professor	100
2014-2017	Ariel University	Head of the Department of Electronic & Electrical Engineering	100
2018-2021	Ariel University	Vice Dean of the Faculty of Engineering	100
2019-2020	Princeton University Princeton, USA	Visiting Professor	33
2021-2023	Ariel University	Chairman of the Senate By-Laws Committee	20

4. SCHOLARSHIPS & PRIZES

1) Talpiot (IDF) Scholarship for Under-Graduate studies (1986-1988).

2) Racah Inst. Scholarship for M.Sc. studies (1989-1991).

3) Schindler Award for the Best M.Sc. Thesis (1991).

4) Racah Inst. Scholarship for Ph.D. studies (1991-1995).

5) Pikovski - Vallechy: Post-Doc scholarship (1998-99).

6) Ministry of Science: Post-Doc scholarship (1998-99).

7) Gravity Research Foundation - 2009 Honorable Mention.

8) Gravity Research Foundation - 2010 Honorable Mention.

9) Gravity Research Foundation - 2011 Honorable Mention.

10) Excellence in teaching & research Certificate-Ariel University Center (2011-2012).

11) Newton Institute (Cambridge) - 2012 Visiting Fellow scholarship.

12) Gravity Research Foundation - 2017 Honorable Mention.

13) Elevator Pitch Competition, Technology Track 1st place – awarded to "Diamond Grading" the 5th biennial conference of Israel's Technology Transfer Organization (ITTN), 22nd October, 2018.

14) Gravity Research Foundation - 2019 Honorable Mention. For the Essay "Is Dark Matter Due to Retardation?"

15) Princeton University – 2019-2020 Visiting Fellow Scholarship.

16) Gravity Research Foundation - 2021 Honorable Mention. For the Essay "Tully - Fisher Relations and Retardation Theory for Galaxies".

17) Entropy 2021 - The Scientific Tool of the 21st Century 05–07 May 2021, online. Best Oral Presentation Award for "Tunneling as a Source for Quantum Chaos" by Ofir Flom, Asher Yahalom, Haggai Zilberberg, Lawrence Horwitz, and Jacob Levitan.

18) Gravity Research Foundation - 2022 Honorable Mention. For the Essay "Lensing Effects in Galactic Retarded Gravity: Why "Dark Matter" is the Same for Both Gravitational Lensing and Rotation Curves".

5. GRANTS

1) A. Yahalom "A Fast Simulation Technique for Fluid Dynamics" MSR Center of Development of Technological Innovation's - Israel's Ministry of Industry & Commerce (1998-2000). [30,000 SH].

2) A. Gover, J. Pinhasi, A. Yahalom, J. Shiloh, A. Levin, R. Shuker, "Development of Photo-Cathode e-gun Technology for FEL" Ministry of Science (1999-2002). [1,800,000 SH].

3) J. Pinhasi & A. Yahalom "Active Imaging with mm Waves in the W Regime Using a FEL Radiation Source" Ministry of Defense (2000-2003). [250,000 SH].

4) A. Yahalom "Fluidex - Developing Fast Fluid Dynamics Simulation" Hamama Orit- Ministry of Industry & Commerce (2001-2003). [300,000 $].

5) J. Pinhasi, A. Yahalom & A. Gover, “Upgrading FEL Radiation Source for Processing and Characterizing Super Conduction Materials” Ministry of Infra Structure (2001-2003). [900,000 SH].

6) G. Grader, J. Pinhasi, A. Yahalom, A. Goldstein & J. Yeshoron “Sintering High Temperature Super- Conducting Materials with Free Electron Laser Radiation” Ministry of Infra Structure (2001-2004). [900,000 SH].

7) J. Pinhasi, A. Yahalom & Y. Lurie, “Simulations of the interaction of electrons with wide band radiation in a wave guide using variational techniques" Israel Science Foundation (2001-2004). [$ 87,000 + $ 20,000 equipment]

8) J. Pinhasi & A. Yahalom “Analysis of a Wide Band EHF Radio Channel" Israeli Consortium of Software Radio (2002-2003). [$ 200,000]

9) A. Gover, J. Pinhasi, A. Yahalom & A. Zinigrad “Free Electron Laser – Millimeter Wave Radiation and Applications” Ministry of Science – Infra structural knowledge centers (2002-2007). [3,600,000 SH]

10) A. Yahalom and G. Pinhasi “Automatic Meshing of Complex Flows” General Motors Foundation (2002). [$ 15,000]

11) J. Pinhasi & A. Yahalom “Development of a Space-Frequency Model for Wide Band Indoor Communications" Israeli Consortium for Short Range Communications (2004-2009). [1,000,000 SH]

12) B. Kapilevich, M. Einat, J. Pinhasi, A. Yahalom & A. Zinigrad “Development of a Passive Imaging System in the Millimeter Wave Regime” Israeli Consortium for Hidden Objects Detection (2004-2007). [852,000 SH]

13) Y. Pinhasi, A. Yahalom, B. Kapilevich & A. Gover “Design of a novel resonator for FEL” Ministry of Defense (2004). [100,000 SH]

14) A. Gover, B. Kapilevich, Y. Pinhasi, A. Yahalom & M. Einat “Development of THz Sources and Technologies” Ministry of Defense (2004-2005). [900,000 SH]

15) Y. Pinhasi & A. Yahalom “Development of generalized model for atmospheric propagation of millimeter, sub-millimeter and THz electro-magnetic waves” Ministry of Defense (2005-2006). [385,000 SH]

16) A. Yahalom & Y. Pinhasi “Active imaging using FEL” Ministry of Defense (2005). [100,000 SH]

17) Y. Pinhasi & A. Yahalom “Using millimeter and THz radiation for detection of far hidden objects” Israeli Consortium for Hidden Objects Detection (2006-2007). [310,000 SH]

18) A. Yahalom, Y. Pinhasi, M. Einat & B. Kapilevich “Transport experiments, magnetic measurements & increasing the frequency in the Israeli Free Electron

Laser by reduction of the wiggler period" Ministry of Defense (2006-2007). [250,000 SH]

19) A. Yahalom & M. Einat "HPM testing of consumer electronics" Signext (2006-2007). [18,000 $]

20) Y. Pinhasi, A. Yahalom & M. Einat "A sub-millimeter coherent RADAR for remote imaging using heterodyne detection" Ministry of Defense (2007-2008). [1,200,000 SH]

21) A. Yahalom & Y. Pinhasi "High Frequency Communication Technology for Small Satellites" Ministry of Science (2007-2008). [175,000 SH]

22) A. Yahalom, Y. Pinhasi & M. Einat "Active imaging behind walls and barriers using FEL radiation" Ministry of Defense (2008). [100,000 SH]

23) Y. Pinhasi, A. Gover & A. Yahalom, "Terrestrial System for radiative energy transmission at millimeter wavelengths" Ministry of Infra Structure (2009-2010). [200,000 SH].

24) A. Yahalom, Y. Pinhasi & M. Einat "THz Infrastructure" Ministry of Defense (2008-2009). [100,000 SH]

25) J. Levitan, A. Yahalom, K. Komashvili, M. Firer, S. Aronov, B. Kapilevich "Investigation of W-band Waves Effect on Cancer Cells" Ariel University of Samaria Fund (2009-2010). [25,000 SH].

26) Moshe Einat & Asher Yahalom, "The effect of MobileTek Device on a Mobile Phone Static Magnetic Field" MobileTek Equalize (2010-2011). [30,000 SH].

27) A. Yahalom, Y. Pinhasi, A. Lipsky & N. Miteva "Measurement of Electricity Quality and Malfunction Localization in High Voltage Networks" Israeli Smart Grid Consortium (ISG) Sponsored by the Israeli Ministry of Industry and Commerce (2011-2014). [420,000 SH].

28) A. Yahalom, B. Kapilevich & D. Michaeli "THz near-field imaging for bio-medical research" Ariel University of Samaria Fund (2011). [5,000 SH].

29) A. Yahalom, Y. Pinhasi, A. Lipsky & N. Miteva "Development of Mathematical Models of Power Networks Operation Modes for Optimization" Israeli Ministry of Infrastructure (2012-2014). [418,499 SH].

30) Jesper Mygind, Susanne Brix Pedersen, Uffe Hasbro Mortensen, Jacob levitan, Asher Yahalom, Konstantin Komoshvili, Stella Aronov and Henrik Bohr "Soft Non-Thermal Radiation Selective Treatment of Cancer Cells and Gene Repair Systems" Eva and Henry Fraenkel Memorial Foundation (2012). [100,000 DKK].

31) Asher Yahalom "Promotion grant for excellent researchers" Ariel University (2014). [45,000 SH].

32) Jacob levitan, Asher Yahalom, Konstantin Komoshvili and Stella Aronov "Non-thermal effect of millimeter waves on human lung cancer cells: mortality and senescence effects" ACACR Ariel Center for Applied Cancer Research (2014). [30,000 SH].

33) Asher Yahalom "Magnetohydrodynamics as a Field Theory, Topological and Group Theoretical Aspects" Ariel University Internal Grant (2014). [10,000 SH].

34) Asher Yahalom & Moshe Einat “Empiric Study of Relativistic Lift” Elbit Systems (2015). [218,500 SH].

35) Konstantin Komoshvili, Jacob levitan and Asher Yahalom "Donation to Cancer Project" Ariel University (2016). [5,257 SH].

36) Yosef Pinhasi & Asher Yahalom “Technique and System for Detection of Failure Location in High Voltage Electrical Power Line Distribution Networks” Ariel University R&D Company (2016). [25,000 SH].

37) Avraham Katz, Stella Aronov, Konstantin Komoshvili, Jacob levitan and Asher Yahalom "Understanding the anti-cancer mechanism of MMW on lung cancer for use in diagnostic and treatment" Multidisciplinary studies of medical and natural sciences Ariel University (2016). [19,250 SH].

38) Yosef Pinhasi, Asher Yahalom & Haim Cohen “Characterizing Diamonds by their Electromagnetic Properties” Ariel University R&D Company (2016). [20,000 SH].

39) Asher Yahalom & Shalem Yahalom "Physical aspects of Jewish law prevention to use electricity on the Sabbath” Ariel University (2016). [10,000 SH].

40) Jacob levitan, Asher Yahalom, Konstantin Komoshvili and Stella Aronov "Effect of millimeter waves on melanoma and lung cancer mice models: the examination of the efficient conditions for suppression of subcutaneous tumor". ACACR Ariel Center for Applied Cancer Research (2016). [20,000 SH].

41) Kfir Dagan & Asher Yahalom "Shunt Regulated Permanent-Magnet Generation System" Ministry of Energy (2016-2017). [65,790 SH].

42) Haim Cohen, Asher Yahalom & Yosef Pinhasi "Diamond Characterization Using Microwave and Millimeter Wave Spectroscopy" Kamin program, Sponsored by the Israeli Ministry of Economics (2017-2019). [630,000 SH].

43) Asher Yahalom "Encouragement for Excellent Researchers of the Academic Year (2017-2018)" Ariel University Internal Grant (2018). [20,000 SH].

44) Idit Avrahami, Asher Yahalom & Yosef Pinhasi "Locating faults in liquids and gases pipes and related systems" Ariel Company Pre-Kamin Grant (2019). [20,000 SH].

45) Asher Yahalom "Smoke Electrostatic Barrier" Ministry of Defense (2019). [90,000 SH].

46) Nathaniel Fisch & Asher Yahalom "Applications of Topological Techniques to Fluid Dynamics and Magnetohydrodynamics" a collaboration project of Princeton & Ariel Universities. Ariel University Internal Grant (2019). [20,000 SH].

47) David Herak & Asher Yahalom "Thimble - Every Screen is a Touch Screen" a collaboration project of Czech University of Life Sciences Prague & Ariel University. Ariel University Internal Grant (2019). [15,000 SH].

48) Wolfgang Tichy & Asher Yahalom "The effect of Relativistic Retardation on Galactic Rotation Curve" a collaboration project of Florida Atlantic University & Ariel University. Ariel University Internal Grant (2019). [10,000 SH].

49) Moshe Averbuch & Asher Yahalom "Electrostatic generator with improved parameters of power and efficiency". Ariel Company Pre-Kamin Grant (2020). [42,000 SH].

50) Samuel A. Cohen & Asher Yahalom "A Charged Relativistic Engine" a collaboration project of Princeton University & Ariel University. Ariel University Internal Grant (2021) [15,000 SH].

51) Asher Yahalom & Moshe Sagi "Empirical Study of a Charged Relativistic Engine" a collaboration project of HIT & Ariel University (2022) [30,000 SH].

6. REFEREED PUBLICATIONS

Book

1) Asher Yahalom "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. doi: 10.2174/97816080519531110101.

2) Yakir Z. Shoshani and Asher Z. Yahalom "The Elusive God" 2019. Cambridge Scholars Publishing, Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK, ISBN (10): 1-5275-3872-9, ISBN (13): 978-1-5275-3872-6.

Chapters in Books

3) A. Yahalom "Hukot Shamaim Vaaretz" (Hebrew). Scientific appendix to a modern interpretation of the book of Genesis- Daat Mikrah by Y. Kil. Mossad Harav Kook (Publishing House), Jerusalem (1997).

4) R. Englman and A. Yahalom “The Jahn-Teller Effect: A Permanent Presence in the Frontiers of Science” a chapter of the volume “Vibronic Interactions: Jahn-Teller Effect in Crystals and Molecules” p. 5-14 edited by M.D. Kaplan and G.O. Zimmerman (Kluwer Academic Publishers 2001). [Los-Alamos Archives cond-mat/0407226]

5) R. Englman and A. Yahalom "Complex States of Simple Molecular Systems" a chapter of the volume "The Role of Degenerate States in Chemistry" edited by M.

Baer and G. Billing in Adv. Chem. Phys. Vol. 124 (John Wiley & Sons 2002). [Los-Alamos Archives physics/0406149]

6) Asher Yahalom & Yosef Pinhasi "Control of Intense Millimeter Wave Propagation by Tailoring the Dispersive Properties of The Medium" a chapter in the book (pages 219-239) "Quasi-Optical Control of Intense Microwave Transmission" NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 203 Hirshfield, Jay L.; Petelin, Michael I. (Eds.) 2005

7) Yosef Pinhasi & Asher Yahalom: "Space-frequency model of ultra wide-band interactions in millimeter wave masers" , a chapter in the book (pages 253-270) "Quasi-Optical Control of Intense Microwave Transmission" NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 203 Hirshfield, Jay L.; Petelin, Michael I. (Eds.) 2005

8) Asher Yahalom "New Variational Principles of Fluid Dynamics and Magnetohydrodynamics" a chapter in a book "Recent Research Developments in Physics" 8 (2009). Editor S. G. Pandalai, 231-308 ISBN: 978-81-7895-346-5 Transworld Research Network, T. C. 37/661(2), Fort Post Office, Trivandrum - 695023, Kerala, India.
http://www.ressign.com/UserBookDetail.aspx?bkid=1107&catid=207

9) Asher Yahalom "Advances in the Field Theory of Flows" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

10) Asher Yahalom "Advances in the field theory of dissipative electromagnetic fields" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

11) Asher Yahalom " Variational analysis of electromagnetic fields in closed and open structures" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

12) Asher Yahalom "Advances in the field theory of Magnetohydrodynamics" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011.
http://www.bentham.org/ebooks/9781608051953/index.htm.

13) Asher Yahalom " The geometrical meaning of time - the emergence of the concept of time in the general theory of relativity" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

14) Asher Yahalom "The Emergence of non Abelian Gauge Field Theory from the Born - Oppenheimer Treatment" a chapter in a book "Advances in Classical Field Theory", Bentham eBooks eISBN: 978-1-60805-195-3, 2011. http://www.bentham.org/ebooks/9781608051953/index.htm.

15) Yosef Pinhasi, Asher Yahalom & Gad A. Pinhasi "Ultra-Wide Band Communications in the Extremely High Frequency (EHF) Band" Chapter 7 in the book "Communication Systems: New Research", pp. 269-286, Nova Science Publishers. Series: Media and Communications - Technologies, Policies and Challenges, Binding: Hardcover, Pub. Date: 2013, 432 pp., 7x10 - (NBC-C), ISBN: 978-1-62618-654-5, Status: AV.

Patents

16) A. Yahalom, "Method and System for Numerical Simulation of Fluid Flow" US Patent 6,516,292 (2003).

17) Haim Cohen, Amir Poznansky, Asher Yahalom, Yehoshua Cohen, Micha Bistritcki, Gad Benett "Transaction Card with Improved Security Features" US Patent 8,256,667 (September 4, 2012).

18) Haim Cohen, Amir Poznansky, Asher Yahalom, Yehoshua Cohen, Micha Bistritcki, Gad Benett "Transaction Card with Improved Security Features" Great Britain Patent GB2476987 (November 27, 2013).

19) Amir Poznansky & Asher Yahalom "Electronic Remote Control Thimble" US Patent 9,092,054, filed 16/4/13 (claiming priority to US Provisional Application No. 61/624,541, filed April 16, 2012). Publication date Jul 28, 2015.

20) Yosef Pinhasi & Asher Yahalom "Fault Location in a Transmission Line" IL Patent 261763, filed 17/03/2017 (claiming priority to US Provisional Application No. 62/309,550, filed March 17, 2016). Publication date 31/10/2018, allowed 12/07/21, 31/10/21 Publication of IL261763A. Date of Grant: 01/02/2022.

21) Yosef Pinhasi & Asher Yahalom "Fault Location in a Transmission Line" USA Patent US11079422B2 (claiming priority to US Provisional Application No. 62/309,550, filed March 17, 2016). 03/08/21 application granted.

Refereed Journal Articles

22) J. Katz, S. Inagaki, and A. Yahalom, "Energy Principles for Self-Gravitating Barotropic Flows: I. General Theory", Pub. Astro. Soc. Japan 45, 421-430 (1993). [Los-Alamos Archives astro-ph/9501048]

23) A. Yahalom, J. Katz and S. Inagaki, "Energy Principles for Self-Gravitating Barotropic Flows: II. The Stability of Maclaurin Flows", Mon. Not. Roy. Astro. Soc. 268, 506-516 (1994). [Los-Alamos Archives astro-ph/9308001]

24) A. Yahalom, "Helicity Conservation via the Noether Theorem" J. Math. Phys. 36, 1324-1327 (1995). [Los-Alamos Archives solv-int/9407001]

25) R. Englman and A. Yahalom, "Cortical Dynamics and Awareness State: An Interpretation of Observed Interstimulus Interval Dependence in Apparent Motion" Physica A, 260 (Nos. 3-4), 555 (1998). [Los-Alamos Archives quant-ph/0406186]

26) M. Baer, A. Yahalom & R. Englman, "Time Dependent and Time Independent Approaches to Study Effects of Degenerate Electronic States" Journal of Chemical Physics, 109, 6550 (1998).

27) R. Englman, A. Yahalom & M. Baer, "Phase-Modulus Relations in Cyclic Wave Functions" Physics Letters A, 251, 223-228 (1999). [Los-Alamos Archives quant-ph/ 0406218]

28) R. Englman & A. Yahalom," Reciprocity between Moduli and Phases in Time-Dependent Wave-Functions" Physical Review A, 60, 3, 1802-1810 (1999). [Los-Alamos Archives quant-ph/0406 217]

29) R. Englman, A. Yahalom & M. Baer, "The Open Path Phase for Degenerate and Non-Degenerate Systems and its Relation to the Wave-function Modulus" EPJ D, 8, 1-7 (2000).). [Los-Alamos Archives physics/0406122]

30) R. Englman & A. Yahalom," Conductivity - Phase Determination in Double Slit Transmission across a Quantum Dot by Hilbert Transform Method" Phys. Rev. B, 61, 2716-2720 (2000). [Los-Alamos Archives cond-mat/0406724]

31) A. Yahalom & R. Englman," Time Determination by Wave-Packet Evolution" Foundation of Physics Letters, 13, 4, 329-343 (2000). [Los-Alamos Archives - cond-mat/0007142]

32) A. Yahalom & R. Englman, "Switching of Geometric Phase in Degenerate Systems" Physics Letters A, 272, 166-173 (2000). [Los-Alamos Archives - cond-mat/0007204]

33) A. Abramovich, Y. Pinhasi, A. Yahalom, D. Bar-Lev, S. Efimov and A. Gover "Optimization of Power Output and Study of Electron Beam Energy Spread in a Free Electron Laser Oscillator" Nuclear Instruments & Methods A, 475, 579-582 (2001).

34) A.M. Mebel, A. Yahalom, R. Englman and M. Baer, "The Study of Conical Intersections between Consecutive Pairs of the Five Lowest ^{2}A'-States of the C_2H Molecule", Journal of Chemical Physics, 115, 8, 3673-89, (2001).

35) Y. Pinhasi, Y. Lurie and A. Yahalom "Model and Simulation of Wide-Band Interaction in Free-Electron lasers" Nuclear Instruments & Methods A, 475/1-3, 147-152, (2001). [Los-Alamos Archives - physics/0607257]

36) Yosef Pinhasi, Yuri Lurie, Asher Yahalom and Amir Abramovich "Space-frequency model of amplified spontaneous emission and super-radiance in free electron laser operating in the linear and non-linear regimes" Nuclear Instruments & Methods A, 483, 510-515 (2002). [Los-Alamos Archives - physics/0406125]

37) R. Englman & A. Yahalom, “Signed Phases and Fields Associated with Degeneracies” Acta Phys. et Chim., 34-35, 283 (2002). [Los-Alamos Archives - quant-ph/0406194]

38) R. Englman, A. Yahalom and M. Baer,"Hierarchical Construction of Finite Diabatic Sets, By Mathieu Functions”, Int. J. Q. Chemistry, 90, 266-272 (2002). [Los-Alamos Archives -physics/0406126]

39) R. Englman, A. Yahalom, M. Baer and A.M. Mebel “Some Experimental. and Calculational Consequences of Phases in Molecules with Multiple Conical Intersections " International Journal of Quantum Chemistry, 92, 135-151 (2003).

40) R. Englman & A. Yahalom, "Phase Evolution in a Multi-Component System”, Physical Review A, 67, 5, 054103-054106 (2003). [Los-Alamos Archives -quant-ph/0406195]

41) R. Englman & A. Yahalom,"Energy Density of a Dissipative Polarizable Solid by a Lagrangian Formalism”, Physics Letters A, 314/5-6, 367-373 (2003). [Los-Alamos Archives -physics/0406128]

42) A. Yahalom & R. Englman, "Phase-Modulus Relations for a Reflected Particle”, J. Phys. Chem. A, *107* (37), 7170 - 7174 (2003). [Los-Alamos Archives -quant-ph/0406197]

43) T. Vertesi, A. Vibok, G. Halasz, A. Yahalom, R. Englman and M. Baer "The Electronic Non-Adiabatic Coupling Matrix: A Numerical Study of the Curl Condition and the Quantization Condition Employing the Mathieu Equation:" J. Phys. Chem. A, *107*(37), 7189 - 7196 (2003).

44) R. Englman & A. Yahalom, “Photo-Chemical Applications of Phase-Modulus Interdependencies” Israel Journal of Chemistry , 43, 339-346 (2003) (Published in 2004). [Los-Alamos Archives -physics/0406130]

45) R. Englman & A. Yahalom," A Variational Procedure for Time-Dependent Processes”, Physical Review E, 69, 2, 026120-026129 (2004). [Los-Alamos Archives -physics/0406131]

46) A. Gover, A. Faingersh, A.Eliran, M. Volshonok, H. Kleinman, S. Wolowelsky, B. Kapilevich, Y. Lasser, Z. Seidov, M. Kanter, A. Zinigrad, M. Einat, Yu. Lurie, A.Abramovich, A. Yahalom, Y. Pinhasi, E. Weisman & J. Shiloh “Radiation Measurements in the New Tandem Accelerator FEL” Nuclear Instruments & Methods A 528/1-2 pp. 23-27 (2004).

47) Yosef Pinhasi,Yuri Lurie and Asher Yahalom, “Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation” Nuclear Instruments & Methods A 528/1-2 pp. 62-66 (2004).

48) R. Englman & A. Yahalom, "Generalized "Quasi-classical" Ground State of an Interacting Doublet” Physical Review B, 69, 22, 224302 (2004). [Los-Alamos Archives - cond-mat/0406725]

49) Y. Pinhasi, A. Yahalom, O. Harpaz & G. Vilner "Study of an Ultra Wideband Transmission in the Extremely High Frequency (EHF) Band" IEEE Transactions on Antennas and Propagation Vol. 52, No. 11, 2833-2842 (November 2004).

50) Y. Pinhasi, Yu. Lurie & A. Yahalom "Space-frequency model of ultra-wide-band interactions in free-electron lasers" Physical Review E, 71, 036503-1-8 (2005).

51) Asher Yahalom, Yosef Pinhasi, Yuri Lurie "Spectral and Variational Principles of Electromagnetic Field Excitation in Wave Guides" Physics Letters A, Volume 344, Issue 1, Pages 18-28 (29 August 2005). doi:10.1016/j.physleta.2005.06.054

52) Asher Yahalom & Yosef Pinhasi "Control of Wave Propagation in a Dielectric Medium by Tailoring its Dispersive Properties" J. Non-Cryst. Solids, Volume 351, issue 33-36, Pages 2922-2924 (15 September 2005). doi:10.1016/j.jnoncrysol.2005.06.023

53) Yosef Pinhasi & Asher Yahalom "Spectral Characteristics of Gaseous Media and Their Effects on Propagation of Ultra-Wideband Radiation in the Millimeter Wavelengths" J. Non-Cryst. Solids, Volume 351, issue 33-36, Pages 2925-2928 (15 September 2005). doi:10.1016/j.jnoncrysol.2005.05.042

54) Y. Socol, A. Gover, A. Eliran, M. Volshonok, Y. Pinhasi, B. Kapilevich, A. Yahalom, Y. Lurie, M. Kanter, M. Einat, & B. Litvak "Study of Coherence Limits and Chirp Control in Long Pulse Fel Oscillator" Physical Review Special Topics - Accelerators and Beams, 8, 080701 (2005). (http://prst-ab.aps.org/abstract/PRSTAB/v8/i8/e080701)

55) Asher Yahalom & Robert Englman "Square-root method for the density matrix in Lindblad processes "Physica A, Vol 371/2 pp 368-386 (2006) doi:10.1016/j.physa.2006.03.036 . [Los-Alamos Archives cond-mat/0512474]

56) Asher Yahalom and Robert Englman "Conductance Phases in Aharonov-Bohm Ring Quantum Dots" Phys. Rev. B 74, 115328 (2006) (8 pages). DOI: 10.1103/PhysRevB.74.115328 [Los-Alamos Archives - cond-mat/0510689]

57) Robert Englman and Asher Yahalom "Vibronic Reduction Factors in $E \otimes (\beta_1 + \beta_2)$ and their Berry's Phase Manifestations" Journal of Molecular Structure **838** 24–26 (2007). doi:10.1016/j.molstruc.2006.12.048

58) Asher Yahalom and Robert Englman "Environment-effect on the Berry phase of a driven $G_{3/2} \otimes \varepsilon(t)$ system in a magnetic field by the square root method" Journal of Molecular Structure **838** 27–31 (2007). doi:10.1016/j.molstruc.2006.12.046

59) Robert Englman, Asher Yahalom & T. Vertesi "Unexpected phase-jumps upon cycling around a conical intersection" Journal of Molecular Structure **838** 20–23 (2007). doi:10.1016/j.molstruc.2006.12.063

60) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Free-Electron Lasers in the Absence of Feedback—Beyond the High Gain Approximation" IEEE Journal of Quantum Electronics, Vol. 43, No. 10, October (2007).

61) A. Yahalom, R. Englman and Y. Pinhasi "Covariant Formulation of the Dynamics in a Dissipative Quantum Dielectric Obtained from a Simplified Lagrangian". [Los-Alamos Archives - physics/0605060] Physics Letters A 372 2941–2948 (2008). http://dx.doi.org/10.1016/j.physleta.2008.01.028

62) Asher Yahalom "The Geometrical Meaning of Time" ["The Linear Stability of Lorentzian Space-Time" Los-Alamos Archives - gr-qc/0602034, gr-qc/0611124] Foundations of Physics http://dx.doi.org/10.1007/s10701-008-9215-3 Volume 38, Number 6, Pages 489-497 (June 2008).

63) Asher Yahalom and Donald Lynden-Bell "Simplified Variational Principles for Barotropic Magnetohydrodynamics" [Los-Alamos Archives - physics/0603128] Journal of Fluid Mechanics Volume 607 pages 235-265 (2008).

64) Asher Yahalom, "Stability of Radial Perturbations for Non-Uniformly Rotating Self-Gravitating, Finite, Gaseous Disks" Physics Letters A **373** pages 1170-1176 (2009) http://dx.doi.org/10.1016/j.physleta.2009.01.060.

65) A. Eliran, A. Gover, Y. Pinhasi, A. Yahalom, Y. Lurie & G. Pinhasi "Statistical Study of Undulator Radiated Power by a Classical Detection System in the Mm-Wave Regime" Physical Review. ST Accelerator & Beams 12, 050701 (2009). http://prst-ab.aps.org/abstract/PRSTAB/v12/i5/e050701

66) Yosef Pinhasi, Asher Yahalom and Gad A. Pinhasi "Ultra Short Pulse Propagation in Lossy Dielectric Media" J. Opt. Soc. Am. B 26, 2404-2413 (2009).

67) Asher Yahalom "The Gravitational Origin of the Distinction between Space and Time" International Journal of Modern Physics D, Vol. 18, Issue: 14, pp. 2155-2158 (2009). DOI: 10.1142/S0218271809016090

68) Yosef Pinhasi, Asher Yahalom and Gad A. Pinhasi "Propagation analysis of ultrashort pulses in resonant dielectric media" Virt. J. Ultrafast Sci., Volume 9, Issue 1, PHOTONICS, January 2010. http://scitation.aip.org/getabs/servlet/GetabsServlet?prog=normal&id=VIRT050000090000010002050000001&idtype=cvips&gifs=yes&ref=no

69) Asher Yahalom "A Four Function Variational Principle for Barotropic Magnetohydrodynamics" EPL 89 (2010) 34005, doi: 10.1209/0295-5075/89/34005. [Los-Alamos Archives - arXiv:0811.2309].

70) Asher Yahalom "Gravity and the Complexity of Coordinates in Fisher Information" International Journal of Modern Physics D, Vol. 19, No. 14 (2010) 2233–2237, © World Scientific Publishing Company DOI: 10.1142/S0218271810018347.

71) Robert Englman & Asher Yahalom “Distributed Phase Acquisition in a Wave Function” EPL 93 (2011) 20001, doi: 10.1209/0295-5075/93/20001.

72) A. Yahalom, Y. Pinhasi, E. Shifman and S. Petnev "Transmission through Single and Multiple Layers in the 3-10 GHz Band and the Implications for Communications of Frequency Varying Material Dielectric Constants" WSEAS Transactions on Communications (ISSN: 1109-2742). Pages 759-772, Issue 12, Volume 9, December 2010.
http://www.worldses.org/journals/communications/communications-2010.htm
http://www.wseas.us/e-library/transactions/communications/2010/52-357.pdf

73) Y. Pinhasi, A. Yahalom, G. A. Pinhasi and M. Lutvak "Atmospheric Effects in Ultra Wideband Wireless Communications in the Extremely High Frequency (EHF) Band" WSEAS Transactions on Communications (ISSN: 1109-2742). Pages 773- 781, Issue 12, Volume 9, December 2010.
http://www.worldses.org/journals/communications/communications-2010.htm
http://www.wseas.us/e-library/transactions/communications/2010/52-380.pdf

74) A. Yahalom, J. Levitan, M. Lewkowicz and L. Horwitz "Lyapunov vs. Geometrical Stability Analysis of the Kepler and the Restricted Three Body Problem" Physics Letters A, Volume 375, Issue 21, 23 May 2011, Pages 2111-2117. doi:10.1016/j.physleta.2011.04.016.

75) Moshe Einat & Asher Yahalom, "Induced Static Magnetic Field by a Cellular Phone" Appl. Phys. Lett. 99, 093503 (2011); doi:10.1063/1.3632081 (3 pages - Impact Factor 3.820)

76) H. S. Marks, M. Volshonok, E. Dyunin, A. Gover Y. Lasser, R. Shershevski and A. Yahalom "Virtual Field Synthesis Scheme for Improving a Linear Wiggler with Lateral Focusing" Nuclear Inst. and Methods in Physics Research, A 660 (21 December 2011) pp. 15-21. http://dx.doi.org/10.1016/j.nima.2011.09.004. (Impact Factor 1.142)

77) Ernestina Cianca, Tommaso Rossi, Asher Yahalom, Yosef Pinhasi, John Farserotu and Claudio Sacchi "EHF for Satellite Communications: the New Broadband Frontier" Proceedings of the IEEE, Volume: 99 Issue: 11, page(s): 1858 – 1881, ISSN: 0018-9219, 10.1109/JPROC.2011.2158765 (2011).

78) Asher Yahalom, “Stability in the Weak Variational Principle of Barotropic Flows and Implications for Self-Gravitating Discs”. [Los-Alamos Archives - astro-ph/9501080] Monthly Notices of the Royal Astronomical Society 418, 401–426 (2011). doi:10.1111/j.1365-2966.2011.19492.x.

79) Lawrence Horwitz, Asher Yahalom, Meir Lewkowicz & Jacob Levitan, "Subtle is the Lord: On the difference between Newtonian (Lyapunov) stability analysis and geometrical stability analysis of gravitational orbits" the International Journal of Modern Physics D. International Journal of Modern Physics D, Vol. 20, No. 14 (2011) pp. 2787-2793, © World Scientific Publishing Company, DOI: 10.1142/S0218271811020639

80) Eliran Alon, Goldshleger Naftaly, Yahalom Asher and Ben-Dor Eyal "First results from a millimeter-wave measurement of soil moisture-content" Remote Sensing Letters, Vol. 3, No. 7, 10 December 2012, 639–645. ISSN 2150-704X (Print), 2150-7058 (Online). DOI:10.1080/01431161.2012.656768.

81) D. Ophir, A. Yahalom, G.A. Pinhasi and M. Kopylenko "Fluid simulation: combined Lagrangian and multi-grid approach" Proceedings of the ICE - Engineering and Computational Mechanics, Volume 165, Issue 1, 01 March 2012 , pages 3 –14 , ISSN: 1755-0777, E-ISSN: 1755-0785.

82) Moshe Einat and Asher Yahalom "The magnetic dipole moment of a cellular phone" Przegląd Elektrotechniczny (Electrical Review), ISSN 0033-2097, R. 88, Pg. 31, NR 5a/2012.

83) Y. Ditkovich, A. Kuperman, A. Yahalom and M. Byalsky "A Generalized Approach to Estimating Capacity Factor of Fixed Speed Wind Turbines" IEEE Transactions on Sustainable Energy, Volume: 3, Issue: 3, Page(s): 607- 608, Digital Object Identifier: 10.1109/TSTE.2012.2204538, 2012.

84) Robert Englman & Asher Yahalom, "Partial Phases in a Circling Electron" International Journal of Modern Physics B, 26, 1250145 (2012) [11 pages] DOI: 10.1142/S0217979212501457.

85) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor and Menachem Agassi "Empirical Model for Backscattering at Millimeter-Wave Frequency by Bare Soil Subsurface With Varied Moisture Content" Geoscience and Remote Sensing Letters, IEEE Volume: 10, Issue: 6, Page(s): 1324 - 1328, Digital Object Identifier: 10.1109/LGRS.2013.2239603, Publication Year: 2013.

86) Robert Englman & Asher Yahalom "Partial Decoherence and Thermalization through Time-Domain Ergodicity" Physical Review A, 87, 052123 (2013) (Impact Factor 2.878). DOI: 10.1103/PhysRevA.87.052123. http://arxiv.org/abs/1306.4220

87) J. Levitan, A. Yahalom, L. Horwitz, and M. Lewkowicz "On the stability of Hamiltonian systems with weakly time dependent potentials" Chaos: An Interdisciplinary Journal of Nonlinear Science, 23, 023122 (2013); doi: 10.1063/1.4808250 (Impact Factor 2.076).

88) S. Bondarenko, L. Horwitz, J. Levitan and A. Yahalom "On asymptotic solutions of RFT in zero transverse dimensions" Nuclear Physics A, Volume 912, 21 August 2013, Pages 49–65. http://dx.doi.org/10.1016/j.nuclphysa.2013.05.005. (Impact Factor 1.540)

89) Asher Yahalom "Aharonov - Bohm Effects in Magnetohydrodynamics" Physics Letters A. (Impact Factor 1.632). Available online 22 May 2013, http://dx.doi.org/10.1016/j.physleta.2013.05.037. Volume 377, Issues 31–33, 30 October 2013, Pages 1898–1904.

90) Y. Ditkovich, A. Kuperman, A. Yahalom and M. Byalsky “Site-Dependent Wind Turbine Performance Index” International Journal of Renewable Energy Research, Vol.3, No.3, p 592-594, 2013.

91) Asher Yahalom "Gravity and Faster than Light Particles" Journal of Modern Physics (JMP), Vol. 4 No. 10 PP. 1412-1416. DOI: 10.4236/jmp.2013.410169. Pub. Date: October 31, 2013

92) Yuri Ditkovich, Alon Kuperman, Asher Yahalom and Michael Byalsky “Alternative Approach to Wind Turbines Performance Index Assessment” ASCE's Journal of Energy Engineering. doi: 10.1061/(ASCE)EY.1943-7897.0000174, 06014001 (2014).

93) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Menachem Agassi and Eyal Ben-Dor "Measurement of soil moisture content under physical crust by millimeter-wave backscattering" The European Journal of Soil Science, November 2014, **65**, 887–896, doi: 10.1111/ejss.12159.

94) Asher Yahalom and Donald Lynden-Bell "Variational Principles for Topological Barotropic Fluid Dynamics" [“Simplified Variational Principles for Barotropic Fluid Dynamics” Los-Alamos Archives - physics/ 0603162] Geophysical & Astrophysical Fluid Dynamics (Impact Factor: 1.19). 11/2014; 108(6). DOI: 10.1080/03091929.2014.952725.

95) Miron Tuval & Asher Yahalom "Newton’s Third Law in the Framework of Special Relativity" Eur. Phys. J. Plus (11 Nov 2014) 129: 240 DOI: 10.1140/epjp/i2014-14240-x. (arXiv:1302.2537 [physics.gen-ph]).

96) Asher Yahalom “On the Difference between Time and Space” Cosmology 2014, Vol. 18. 466-483. Cosmology.com.

97) Robert Englman & Asher Yahalom “Open Systems' Density Matrix Properties in a Time Coarsened Formalism” Foundations of Physics © Springer Science + Business Media New York 2015. DOI 10.1007/s10701-015-9894-5, published online 14 April 2015, Volume 45, Issue 6, Page 673-690 (ArXiv: 1505.02073).

98) A. Yahalom, M. Lewkowicz, J. Levitan, G. Elgressy, L.P. Horwitz, and Y. Ben-Zion, "Uncertainty Relation for Chaos" International Journal of Geometric Methods in Modern Physics. DOI: 10.1142/S0219887815500930. Vol. 12 (2015) 1550093 (12 pages), © World Scientific Publishing Company.

99) Y. Strauss, L. P. Horwitz, J. Levitan and A. Yahalom “Quantum Field Theory of Classically Unstable Hamiltonian Dynamics” Journal of Mathematical Physics 56, 072701 (2015). (arXiv:1407.5263 [math-ph])

100) Nezah Balal, Eyal Magori & Asher Yahalom “Design of a Permanent Magnet Wiggler for a THz Free Electron Laser” Acta Physica Polonica A, Vol. 128 No. 3 page 259- 263 (2015).

101) Asher Yahalom "Simplified Variational Principles for non-Barotropic Magnetohydrodynamics". (arXiv: 1510.00637 [Plasma Physics]) J. Plasma Phys. (2016), vol. 82, 905820204 © Cambridge University Press 2016 doi:10.1017/S0022377816000222.

102) Michael Suleymanov and Asher Yahalom "Quantum Mechanics a God less Theory". Cosmology 2016, Vol. 24. 516-532, Cosmology.com.

103) Asher Yahalom "Simplified Variational Principles for Stationary non-Barotropic Magnetohydrodynamics" International Journal of Mechanics, Volume 10, 2016, p. 336-341. ISSN: 1998-4448.

104) Asher Yahalom "Non-Barotropic Magnetohydrodynamics as a Five Function Field Theory". International Journal of Geometric Methods in Modern Physics, No. 10 (November 2016). Vol. 13 1650130 (13 pages) © World Scientific Publishing Company, DOI: 10.1142/S0219887816501309.

105) Miron Tuval and Asher Yahalom "Momentum Conservation in a Relativistic Engine" Eur. Phys. J. Plus (2016) 131: 374. DOI: 10.1140/epjp/i2016-16374-1

106) Horwitz, Lawrence; Yahalom, Asher; Levitan, Jacob and Lewkowicz, Meir "An Underlying Geometrical Manifold for Hamiltonian Mechanics". (ArXiv: 1511.09185 [physics.class-ph]). Front. Phys. 12(1), 124501 (2017), DOI 10.1007/s11467-016-0610-5

107) Asher Yahalom "A Conserved Local Cross Helicity for Non-Barotropic MHD" (ArXiv 1605.02537). Pages 1-7, Journal of Geophysical & Astrophysical Fluid Dynamics. Published online: 25 Jan 2017. Vol. 111, No. 2, 131–137. http://dx.doi.org/10.1080/03091929.2017.1281410 .

108) Michael Suleymanov, Lawrence Horwitz, and Asher Yahalom "Second quantization of a covariant relativistic space-time string in Steuckelberg–Horwitz–Piron theory" (arXiv: 1612.04193). Frontiers of Physics, First Online: 29 April 2017. 12(3), 121103 (2017). Pages 121103-1 - 121103-10. DOI 10.1007/s11467-017-0666-x.

109) Asher Yahalom "Retardation in Special Relativity and the Design of a Relativistic Motor". Acta Physica Polonica A, Vol. 131 (2017) No. 5, 1285-1288. DOI: 10.12693/APhysPolA.131.1285.

110) Asher Yahalom "Gravity, Stability and Cosmological Models". International Journal of Modern Physics D. Published: 10 October 2017 issue (No. 12). https://doi.org/10.1142/S021827181717026X

111) Stela Aronov, Moshe Einat, Olga Furman, Moritz Pilossof, Konstantin Komoshvili, Roey Ben-Moshe, Asher Yahalom & Jacob Levitan "Millimeter-Wave Insertion Loss of Mice Skin". Journal of Electromagnetic Waves and Applications. Pages 1-10 | Received 31 Jul 2017, Accepted 07 Nov 2017,

Published online: 22 Nov 2017. https://doi.org/10.1080/09205071.2017.1404941 Pages 758-767, Volume 32, 2018 - Issue 6.

112) Asher Yahalom “Non-Barotropic Cross-helicity Conservation Applications in Magnetohydrodynamics and the Aharanov - Bohm effect" (arXiv:1703.08072 [physics.plasm-ph]). Fluid Dynamics Research, Volume 50, Number 1, 011406. https://doi.org/10.1088/1873-7005/aa6fc7 . Received 11 December 2016, Accepted Manuscript online 27 April 2017, Published 30 November 2017.

113) G. Weinstein, Y. Strauss, S. Bondarenko, A. Yahalom, M. Lewkowicz, L. P. Horwitz and J. Levitan “Entropy Measures as Geometrical Tools in the Study of Cosmology” (arXiv:1504.07855) Entropy, Pages 1-8, 2018, 20, 6; doi:10.3390/e20010006. Received: 20 October 2017; Accepted: 20 December 2017; Published: 25 December 2017.

114) Asher Yahalom "Editorial: Making Science that Really Explain Things". Journal of Physics & Astronomy, Vol: 5(4) 2017.

115) Asher Yahalom "A Simpler Variational Principle for Stationary non-Barotropic Ideal Magnetohydrodynamics". Chaotic Modeling and Simulation (CMSIM), 1: 19-33, 2018. Received: 15 October 2017 / Accepted: 28 December 2017.

116) A. Yahalom “The Fluid Dynamics of Spin”. (arXiv:1802.09331 [physics.flu-dyn]). Molecular Physics 2018, Vol. 116, Nos. 19–20, 2698–2708, Received 02 Feb 2018, accepted 15 Mar 2018, Published online: 13 Apr 2018. http://dx.doi.org/10.1080/00268976.2018.1457808

117) Ofir Flom, Asher Yahalom, Haggai Zilberberg, Lawrence Horwitz, and Jacob Levitan “Tunneling as a Source for Quantum Chaos”. (arXiv:1507.04842 [quant-ph]). Quantum Information and Computation, Vol. 19, No. 3 & 4 (2019) 0222-0236 © Rinton Press. DOI: https://doi.org/10.26421/QIC19.3-4

118) Shailendra Rajput, Moshe Averbukh & Asher Yahalom "Electric power generation using a parallel-plate capacitor" Accepted: 19 February 2019. DOI: 10.1002/er.4492. International Journal of Energy Research, 2019; 1–9. wileyonlinelibrary.com/journal/er © 2019 John Wiley & Sons, Ltd.

119) Shoshani, Y. & Yahalom, A. "Apriorics and Structuralism" Found Sci 25, 281–296 (2020). https://doi.org/10.1007/s10699-019-09617-4. Published online 11 July 2019, Issue Date: June 2020.

120) Yakov Abetbool, Shailendra Rajput, Asher Yahalom & Moshe Averbukh "Comprehensive Study on Dynamic Parameters of Symmetric and Asymmetric Ultracapacitors" Electronics 2019, 8(8), 891; https://doi.org/10.3390/electronics8080891.

121) Rajput, S.; Averbukh, M.; Yahalom, A.; Minav, T. An Approval of MPPT Based on PV Cell’s Simplified Equivalent Circuit During Fast-Shading Conditions. Electronics 2019, 8, 1060.

122) I. Chaimov, E. Dyunin and A. Yahalom "Correcting for FEL magnetic field distortions: The method of bilinear shimming" Acta Physica Polonica A, Vol. 136 No. 5 (2019) 745-748.

123) Furman, Olga; Komoshvili, Konstantin; Levitan, Jacob; Yahalom, Asher; Marcs, Harry; Borodin, Dmitri; Aronov, Stella "The lack of toxic effect of high-power short-pulse 101 GHz millimeter waves on healthy mice". Bioelectromagnetics, © 2020 Bioelectromagnetics Society. Received for review 12 September 2018; Accepted 2 January 2020. DOI:10.1002/bem.22247, Published online 17 January 2020 in Wiley Online Library (wileyonlinelibrary.com). Volume41, Issue3, April 2020, Pages 188-199.

124) Konstantin Komoshvili, Tzippi Becker, Jacob Levitan, Asher Yahalom, Ayan Barbora and Stella Liberman- Aronov , "Morphological changes in H1299 human lung cancer cells following Millimeter-wave irradiation" Applied Biosciences and Bioengineering. Appl. Sci. 2020, 10, 3187; doi:10.3390/app10093187.

125) S. Rajput and A. Yahalom, "Material Engineering and Design of a Relativistic Engine: How to Avoid Radiation Losses". Advanced Engineering Forum ISSN: 2234-991X, Vol. 36, pp 126-131. Submitted: 2019-06-16, Accepted: 2020-05-18, Online: 2020-06-17. © 2020 Trans Tech Publications Ltd, Switzerland.

126) Strauss, Y.; Horwitz, L.P.; Levitan, J.; Yahalom, A. "Canonical Transformation of Potential Model Hamiltonian Mechanics to Geometrical Form I". Symmetry 2020, 12(6), 1009; https://doi.org/10.3390/sym12061009. Received: 29 April 2020 / Revised: 7 June 2020 / Accepted: 10 June 2020 / Published: 14 June 2020.

127) Komoshvili, Konstantin; Israel, Katya; Levitan, Jacob; Yahalom, Asher; Barbora, Ayan; Liberman-Aronov, Stella. 2020. "W-Band Millimeter Waves Targeted Mortality of H1299 Human Lung Cancer Cells without Affecting Non-Tumorigenic MCF-10A Human Epithelial Cells In Vitro." Appl. Sci. 10, no. 14: 4813. https://doi.org/10.3390/app10144813 Received: 16 May 2020 / Revised: 14 June 2020 / Accepted: 6 July 2020 / Published: 13 July 2020.

128) Asher Yahalom "The Fluid Dynamics of Spin - a Fisher Information Perspective and Comoving Scalars" Chaotic Modeling and Simulation (CMSIM) 1: 17-30, 2020.

129) Rajput, S.; Kuperman, A.; Yahalom, A.; Averbukh, M. "Studies on Dynamic Properties of Ultracapacitors Using Infinite r–C Chain Equivalent Circuit and Reverse Fourier Transform". Energies 2020, 13, 4583.

130) Asher Yahalom "Lorentz Symmetry Group, Retardation, Intergalactic Mass Depletion and Mechanisms Leading to Galactic Rotation Curves" Symmetry 2020, 12(10), 1693; https://doi.org/10.3390/sym12101693 https://arxiv.org/abs/2012.04490

131) Asher Yahalom & Hong Qin "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" Journal of Fluid Mechanics, 908, A4. doi:10.1017/jfm.2020.856, 2021.

132) Shailendra Rajput, Asher Yahalom & Hong Qin "Lorentz Symmetry Group, Retardation and Energy Transformations in a Relativistic Engine" Symmetry 2021, 13, 420. https://doi.org/10.3390/sym13030420 **Editor's Choice**.

133) Yossi Rabinowitz, Ariel Etinger, Boris Litvak, Ira Litvak, Asher Yahalom, Haim Cohen & Yosef Pinhasi "Millimeter Wave Spectroscopy for Evaluating Diamond Color Grades" Diamond and Related Materials, 2021, 108386, ISSN 0925-9635, https://doi.org/10.1016/j.diamond.2021.108386.

134) Doron Greenberg, Michael Byalsky & Asher Yahalom "Valuation of Wind Energy Turbines Using Volatility of Wind and Price" Electronics 2021, 10, 1098. https://doi.org/10.3390/electronics10091098.

135) Horwitz, Lawrence P.; Namboothiri, Vishnu S; Varma K, Gautham; Yahalom, Asher; Strauss, Yosef; Levitan, Jacob. 2021. "Raychaudhuri Equation, Geometrical Flows and Geometrical Entropy" Symmetry 13, no. 6: 957. https://doi.org/10.3390/sym13060957.

136) Yahalom, A. Lensing Effects in Retarded Gravity. *Symmetry* **2021**, *13*, 1062. https://doi.org/10.3390/sym13061062. https://arxiv.org/abs/2108.04683.

137) Rabinowitz, Y.; Etinger, A.; Yahalom, A.; Cohen, H.; Pinhasi, Y. Microwave Spectroscopy as a Potential Tool for Color Grading Diamonds. *Energies* **2021**, *14*, 3507. https://doi.org/10.3390/en14123507.

138) Yahalom A. Effects of Higher Order Retarded Gravity. Universe. 2021; 7(7):207. https://doi.org/10.3390/universe7070207. https://arxiv.org/abs/2108.08246

139) Rajput, Shailendra, and Asher Yahalom. 2021. "Newton's Third Law in the Framework of Special Relativity for Charged Bodies" Symmetry 13, no. 7: 1250. https://doi.org/10.3390/sym13071250

140) Barbora, A.; Rajput, S.; Komoshvili, K.; Levitan, J.; Yahalom, A.; Liberman-Aronov, S. Non-Ionizing Millimeter Waves Non-Thermal Radiation of Saccharomyces cerevisiae—Insights and Interactions. Appl. Sci. 2021, 11, 6635. https://doi.org/10.3390/app11146635

141) Hong Qin, Yichen Fu, Alexander S. Glasser and Asher Yahalom "Spontaneous and explicit parity-time-symmetry breaking in drift-wave instabilities" Phys. Rev. E 104, 015215 – Published 28 July 2021 https://doi.org/10.1103/PhysRevE.104.015215

142) Yahalom, Asher. 2021. "A Three-Function Variational Principle for Stationary Nonbarotropic Magnetohydrodynamics" Symmetry 13, no. 9: 1632. https://doi.org/10.3390/sym13091632

143) A. Yahalom "Tully - Fisher Relations and Retardation Theory for Galaxies" International Journal of Modern Physics D, (2021), Volume No. 30, Issue No. 14, Article No. 2142008 (8 pages). © World Scientific Publishing Company. https://doi.org/10.1142/S0218271821420086, https://arxiv.org/abs/2110.05935 .

144) Yahalom, Asher. 2022. "Newton's Third Law in the Framework of Special Relativity for Charged Bodies Part 2: Preliminary Analysis of a Nano Relativistic Motor" Symmetry 14, no. 1: 94. https://doi.org/10.3390/sym14010094 .

145) Horwitz, Lawrence P., Vishnu S. Namboothiri, Gautham Varma K, Asher Yahalom, Yosef Strauss, and Jacob Levitan. 2022. "Entropy Bounds: New Insights" Symmetry 14, no. 1: 126. https://doi.org/10.3390/sym14010126 .

146) Flom, Ofir, Asher Yahalom, Jacob Levitan, and Haggai Zilberberg. 2022. "Phase-Amplitude Relations for a Particle with a Superposition of Two Energy Levels in a Double Potential Well" Entropy 24, no. 3: 312. https://doi.org/10.3390/e24030312. Video Abstract.

147) Yossi Rabinowitz, Asher Yahalom, Haim Cohen and Yosef Pinhasi "Microwave spectroscopy as a potential tool for characterizing synthetic HPHT diamonds" CrystEngComm 2022, 24, 1849. Royal Society of Chemistry https://doi.org/10.1039/D1CE01685G

148) Nabwani, Moneer, Michael Suleymanov, Yosef Pinhasi, and Asher Yahalom. 2022. "Real-Time Fault Location Using the Retardation Method" Electronics 11, no. 7: 980. https://doi.org/10.3390/electronics11070980

149) Yahalom, Asher. 2022. "The Primordial Particle Accelerator of the Cosmos" Universe 8, no. 11: 594. https://doi.org/10.3390/universe8110594 arXiv:2211.09674 [gr-qc].

150) A. Yahalom "Lensing Effects in Galactic Retarded Gravity: Why "Dark Matter" is the Same for Both Gravitational Lensing and Rotation Curves" IJMPD Vol. 31, No. 14, 2242018 (10 pages), received 23 May 2022, Accepted 31 August 2022, published online 30 September 2022. https://doi.org/10.1142/S0218271822420184

151) Yahalom, A. Fisher Information Perspective of Pauli's Electron. Entropy 2022, 24, 1721. https://doi.org/10.3390/e24121721

152) Yahalom, A. The Weak Field Approximation of General Relativity and the Problem of Precession of the Perihelion for Mercury. Symmetry 2023, 15, 39. https://doi.org/10.3390/sym15010039

153) Englman, R., Yahalom, A. Lindbladian-Induced Alignment in Quantum Measurements. Found Phys 53, 19 (2023). https://doi.org/10.1007/s10701-022-00659-6

Refereed Conference Papers

154) A. Yahalom & G. Pinhasi "Simulating Fluid Dynamics using a Variational Principle" Proceedings of the AIAA Conference 2003, Reno, USA.

155) Y. Pinhasi, A. Yahalom, O. Harpaz & G. Vilner, "Spectral Characteristics of Gaseous Media and Their Effects on Propagation of Ultra-Wideband Millimeter Wave Radiation" Second Israeli-Russian Bi-National Workshop (2003).

156) A. Yahalom & G. A. Pinhasi, "Hexahedral Meshing Analysis for Complex Geometry" Second Israeli-Russian Bi-National Workshop (2003).

157) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Distributed Gain Media and Free-Electron Lasers in the Absence of Feedback" Proceedings of the 26th International Free-Electron Laser Conference, 14-17, 29 August -3 September 2004, Trieste, Italy.

158) Z. Seidov, Y. Pinhasi & A. Yahalom "ABCD Matrix Method: A Case Study" Proceedings of the 26th International Free-Electron Laser Conference, 419-422, 29 August -3 September 2004, Trieste, Italy.

159) Z. Seidov, Y. Pinhasi & A. Yahalom "Spot-to-Beam Procedure" Proceedings of the 26th International Free-Electron Laser Conference, 423-426, 29 August - 3 September 2004, Trieste, Italy.

160) A. Gover, A. Eliran, Y. Socol, M. Volshonok, Y. Pinhasi, B. Kapilevich, A. Yahalom, Y. Lurie, M. Kanter & M. Einat "Study of Coherence Limits and Chirp Control in Long Pulse FEL Oscillator" Proceedings of the 26th International Free-Electron Laser Conference, 289-292, 29 August -3 September 2004, Trieste, Italy.

161) Asher Yahalom & Yosef Pinhasi "Analysis of Linear System Response to Wide Band Signals with Applications to Filters " Proceeding of the ICECS 2004 11th IEEE International Conference on Electronics, Circuits and Systems, paper # 1171, December 13-15, 2004, Tel-Aviv, Israel.

162) A. Yahalom, G.A. Pinhasi and M. Kopylenko "A Numerical Model Based on Variational Principle for Airfoil and Wing Aerodynamics" Proceedings of the AIAA Conference 2005, Reno, USA.

163) Yosef Pinhasi & Asher Yahalom "Study of Ultra-wide-Band Transmission in the Extremely High Frequency (EHF) Band", Proceedings of the 19th IEEE S-AP/MTT Joint Chapter Symposium, Hertzliya, Israel (May 9, 2005).

164) Asher Yahalom & Yosef Pinhasi "Control of Micro Wave & Millimeter wave Propagation by Tailoring the Dispersive Properties of the Medium", Proceedings of the 19th IEEE S-AP/MTT Joint Chapter Symposium, Hertzliya, Israel (May 9, 2005).

165) Yosef Pinhasi, Asher Yahalom, Sergey Petnev & Oren Harpaz "Indoor Radio Wave Propagation Effect on Short-Range Links" Proceedings of the IEEE - Communication in the Personal Domain and the Smart House, Dan Panorama Hotel, Tel-Aviv, June 1-2, 2005.

166) D. Ophir, A. Yahalom, G. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" Proceedings of International Conference on Adaptive Modeling and Simulation (ADMOS 2005), 8-10 September 2005, pages 295-304, Barcelona, Spain.

167) Asher Yahalom, Yosef Pinhasi & Yuri Lurie "Variational Approach for Coupled Backward and Forward Wave Excitation in Free-Electron Lasers" proceedings of the 27th International Free-Electron Laser Conference, 21 August - 26 August 2005, pages 270-273, Stanford, CA USA.

168) Y. Socol, A. Faingarsh, S. Peleg, M. Volshonok, A. Gover, M. Einat, M. Kanter, B. Kapilevich, B. Litvak, Y. Lurie, Y. Pinhasi & A. Yahalom "The Israeli Ea-Fel Upgrade Towards Long Pulse Operation for Ultra-High Resolution Single Pulse Coherent Spectroscopy" proceedings of the 27th International Free-Electron Laser Conference, 21 August - 26 August 2005, pages 297-300 Stanford, CA USA.

169) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Free-Electron Lasers in the Absence of Feedback: Beyond the High Gain Approximation" proceedings of the 27th International Free-Electron Laser Conference 21-26 August 2005, pages 266-269, Stanford, California, USA.

170) A. Yahalom, Y. Pinhasi, Y. Lurie, A. Eliran, & A. Gover "Statistical Analysis of Spontaneous Radiation in the Israeli EA-FEL as a Tool for System Characterization" proceedings of the 27th International Free-Electron Laser Conference 21-26 August 2005, pages 293-296, Stanford, California, USA.

171) Asher Yahalom & Yosef Pinhasi "Optimization of the Composition of Materials for Pulse Shaping", Proceedings of the Israeli – Russian Bi-National Workshop, 19-23 June (2005).

172) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Radiation propagation in slab dielectric media", Proceedings of the Israeli – Russian Bi-National Workshop, 19-23 June (2005).

173) D. Ophir, A. Yahalom, G. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" proceedings of AIAA Conference 2006, Reno, USA.

174) A. Yahalom, G. Pinhasi, M. Kopylenko and D. Ophir "FLUIDEX as a Tool for Aerodynamics Education" proceedings of AIAA Conference 2006, Reno, USA.

175) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Propagation of Ultra-Wide Band Signals for Indoor Short Range Wireless Networks" proceedings of the Israeli IEEE AP_MTT Symposium, May 8, 2006, pages 172-178, Herzliya, Israel.

176) Asher Yahalom, Yosef Pinhasi, Michael Kopylenko & Michael Ensimov "An atmospheric transmission software for wide band communication applications" proceedings of the Israeli IEEE AP_MTT Symposium, May 8, 2006, pages 179-184, Herzliya, Israel.

177) A. Yahalom, Y. Pinhasi, M. Kopylenko and M. Ensimov "An atmospheric transmission software for wide band communication & imaging applications" proceedings of Military Technologies Conference 2006, Tel-Aviv, Israel.

178) Alon Faingersh, Jeremy Dadoun, Khona Garb, Avraham Gover, Yehoshua Socol , Moshe Einat, Boris Kapilevich, Boris Litvak, Yosef Pinhasi, Asher Yahalom, Grigoriy Denisov & M. Y. Shmelyov "New Resonator for the Israeli FEL", proceedings of the FEL2006 conference, Berlin, Germany.

179) Yehoshua Socol, Egor Dyunin, Avraham Gover, Mark Volshonok, Moshe Einat, Yuri Lurie, Yosef Pinhasi & Asher Yahalom "Present Status of the Israeli FEL: Increasing FEL Power by Electron Beam Energy Boosting", proceedings of the FEL2006 conference, Berlin, Germany.

180) Yosef Pinhasi, Yuri Lurie, Asher Yahalom "Space-Frequency Model of Ultra Wide-Band Interactions in Free-Electron Lasers", proceedings of the FEL2006 conference, Berlin, Germany.

181) A. Yahalom "CFD Methods Derived from Simplified Variational Principles" proceedings of AIAA Conference 2007, Reno, USA.

182) Asher Yahalom, Yosef Pinhasi, Ben Paz & Gil Kidron "Imaging with THz at stand-off distances (20-30 meter)-The State of the Art" proceedings of the Israeli IEEE AP_MTT Symposium, May 15, 2007, Tel Aviv, Israel.

183) Y. Pinhasi, A. Yahalom, B. Kapilevich, Y. Socol, D. Hardon, B. Paz & G. Kidron "Tera-Hertz Technology for Remote Sensing" proceedings of Military Technologies Conference 2007, pages 71-80, Tel-Aviv, Israel.

184) Boris Kapilevich, Moshe Einat, Michael Kanter, Boris Litvak, Asher Yahalom, Avraham Gover "Millimeter Waves Sensing Behind Walls - Feasibility Study with FEL Radiation" proceedings of the FEL2007 conference, Budker INP, Novosibirsk, Russia.

185) Asher Yahalom "Using Magnetic Fields to Optimize Material Flow - a Variational Approach to Magnetohydrodynamics", Proceedings of the Israeli – Russian Bi-National Workshop, 25-28 June (2007).

186) Yosef Pinhasi, Yehoshua Socol, Asher Yahalom, Boris Kapilevich, Dani Hardon, Boris Litvak, Ben Paz & Gilad Kidron "Frequency domain characterization of dielectric materials in the Terahertz spectral range", Proceedings of the Israeli – Russian Bi-National Workshop, 25-28 June (2007).

187) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Propagation of Ultra Wide-Band Signals in Lossy Dispersive Media" proceedings of the 1st International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS 2008), Tel-Aviv, Israel, May 13th - 14th, 2008.

188) Asher Yahalom "Future Military Applications of Free Electron Lasers" proceedings of the Military Technologies Conference, Airport City, Avenue Center 18.5.2008.

189) Asher Yahalom "A Finite Element Approach Derived from the Simplified Variational Principle" proceedings of the 9th ASME Engineering Systems Design and Analysis Conference (ESDA 2008) Faculty of Mechanical Engineering, Technion Haifa, Israel, July 7-9, 2008.

190) B. Kapilevich, Y. Pinhasi, A. Yahalom & B. Litvak "THz Characterization of Lossy Materials Using Multi-Layers Measuring Cell" Proc. 3rd International Conference on Infrared, Millimeter, and Terahertz Waves, California Institute of Technology, Pasadena, California USA, September 15 - 19, 2008.

191) Asher Yahalom, "Simplified Variational Principles for Barotropic Magnetohydrodynamics" Proceedings of PIERS 2009, Beijing, China.

192) B. Kapilevich, A. Yahalom, B. Litvak & D. Michaeli "Microwave Diagnostics of some Bio-Medical Solutions using Cylindrical Resonator" Proceedings of EUROCON 18-23.5.2009, St. Petersburg Electrotechnical University, Russia.

193) H. S. Marks, M. Volshonok, E. Dyunin, A. Gover, Y. Lasser, R. Shershevski and A. Yahalom "Improvement of a Wiggler By Single Axis Magnetic Measurement, Virtual Synthesis and Relocation of Magnets" Proceedings of the FEL2009 conference, Liverpool, United Kingdom.

194) Asher Yahalom, Yosef Pinhasi, Elhanan Shifman and Sergey Petnev "Transmission through Multiple Layers in UWB and Narrow Band Communications a Joint Theoretical & Experimental Perspective" Proceedings of the annual meeting of the Israeli Electronic & Electrical Engineers Society, (Electricity 2009), November 1-2, 2009, David Intercontinental Hotel, Tel-Aviv, Israel.

195) Asher Yahalom "Simplified Variational Principles for Non-Stationary Barotropic Fluid Dynamics with Non Trivial Topologies" Proceedings of the Eighth Israeli-Russian Bi-National Workshop 2009 "The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials" (28.6 – 3.7 2009).

196) Asher Yahalom, Yosef Pinhasi, Elhanan Shifman & Seregey Petnev "Transmission through Multiple Layers in UWB and Narrow Band Communications" Proceedings of the IEEE COMCAS 2009, Tel-Aviv, Israel.

197) A. Yahalom, Y. Pinhasi, E. Shifman and S. Petnev "Transmission through Single and Multiple Layers in the 3-10 GHz Band and the Implications for Communications of Frequency Varying Material Dielectric Constants" Proceedings of CSCC 2010, Corfu, Greece.

198) Y. Pinhasi, A. Yahalom, G. A. Pinhasi and M. Lotock "Atmospheric Effects in Ultra Wideband Wireless Communications in the Extremely High Frequency (EHF) Band" Proceedings of CSCC 2010, Corfu, Greece.

199) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor and Menachem Agassi, "First Results from a Millimeter-Wave Soil Moisture-Content Measurement" Proceedings of the 3rd International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS2011), 7-9 November, Hilton Tel-Aviv, Israel. Issue Date: 7-9 Nov. 2011. Page(s): 1 – 4, ISBN: 978-1-4577-1692-8, INSPEC Accession Number: 12442398, Digital Object Identifier: 10.1109/COMCAS.2011.6105903.

200) Konstantin Komoshvili, Jacob Levitan, Stela Aronov, Asher Yahalom, Boris Kapilevich, "Millimeter Waves Non-Thermal Effect on Human Lung Cancer Cells" Proceedings of the 3rd International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS2011), 7-9 November, Hilton Tel-Aviv, Israel. Page(s): 1 – 4, ISBN: 978-1-4577-1692-8, INSPEC Accession Number: 12442360, Digital Object Identifier: 10.1109/COMCAS.2011.6105865.

201) Asher Yahalom "Using Fluid Variational Variables to Obtain New Analytic Solutions" Proceedings of the Tenth Israeli-Russian Bi-National Workshop 2011 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials”, pages 24-38, June 20-23, Jerusalem, Israel.

202) Y. Pinhasi, A. Yahalom & G. A. Pinhasi "Ultra Wideband Wireless Satellite Communications in the 94 GHz Band" Proceedings of the 2012 IEEE Aerospace Conference, 3-10 March 2012, Big Sky, Montana, USA.

203) Y. Pinhasi, B. Kapilevich, A. Yahalom, B. Litvak, M. Anisimov and D. Hardon "Monitoring of atmosphere attenuation in W-band" Proceedings of the 2012 IEEE 27th Convention of Electrical & Electronics Engineers in Israel (IEEEI 2012).

204) Alon Kuperman, Yuri Ditkovich, Asher Yahalom, Yael Ditkovich & Saad Tapuchi "Wind turbine performance index" Proceedings of the 2012 IEEE 27th Convention of Electrical & Electronics Engineers in Israel (IEEEI 2012).

205) Michael Byalsky & Asher Yahalom "On the Wind Energy Use and its Relevance in the Ariel Area" Proceedings of the international conference “Actual

Problems and Perspectives of Innovative Agroeconomics" ("Актуальные проблемы и перспективы инновационной агроэкономики"), Saratov, Russia, the Saratov State Agrarian University, 12th Dec., 2012. (Section: The Resource Saving Technologies in the Effective Operation in Agroeconomics.)

206) Asher Yahalom "Using fluid variational variables to obtain new analytic solutions of self-gravitating flows with nonzero helicity" Procedia IUTAM 7 (2013) 223 – 232.

207) Asher Yahalom, "A New Diffeomorphism Symmetry Group of Magnetohydrodynamics" V. Dobrev (ed.), Lie Theory and Its Applications in Physics: IX International Workshop, Springer Proceedings in Mathematics & Statistics 36, p. 461-468, DOI 10.1007/978-4-431-54270-4 33, © Springer Japan 2013.

208) Asher Yahalom, "Variational Principles for Topological Barotropic Fluid Dynamics" Proceedings of 9th WSEAS International Conference on Applied and Theoretical Mechanics (MECHANICS '13), Dubrovnik, Croatia, June 25-27, 2013.

209) Asher Yahalom, "Magnetic Helicity and the Aharonov-Bohm Constraint for Fusion" Proceedings of the Twelfth Russian-Israeli Bi-National Workshop 2013 "The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials" July 8-10, 2013, Jerusalem-Ariel, Israel.

210) Uri Nissan (Nissanov) and Asher Yahalom "Moving target Speed calibrator for Multanova 6F speed radar (34.3GHz)" proceedings of IEEE COMCAS 2013, Page(s): 1 – 5, October 21-23, David Intercontinental Hotel, Tel-Aviv, Israel. 10.1109/COMCAS.2013.6685291

211) A. Friedman, A. Gover, E. Dyunin, Y. Lurie, M. Einat, B. Kapilevich, A. Yahalom, O. Horwitz, D. Cheskis, E. Farber, A. Abramovich and Y. Vashdi "Design and Status of Tera-Hertz FEL in Ariel University" Proceedings of the 16th Israeli Plasma Science and Technology Conference, Tel-Aviv University, Feb. 5th, 2014.

212) H. S. Marks, H. Kleinman, A. Nause, A. Gover, M. Einat, M. Kanter, D. Borodin, Y. Lurie, B. Kapilevich, B. Litvak, A. Yahalom & A. Friedman "High Power Long-Pulse Operation of a Millimeter Wave FEL" Proceedings of the 16th Israeli Plasma Science and Technology Conference, Tel-Aviv University, Feb. 5th, 2014.

213) M. Byalsky, A. Yahalom, "Modeling of the Wind Energy Use Efficiency", Proceedings of the 4th Annual International Conference on Qualitative and Quantitative Economics Research (QQE 2014), 28-29th Apr. 2014, GSTF, Phuket, Thailand: 91-93 (2014); doi:10.5176/2251-2012_QQE14.28.

214) Asher Yahalom "Variational Analysis of Topological Stationary Barotropic MHD in the Case of Single Valued Magnetic Surfaces" Journal of Physics: Conference Series 544 (2014) 012009 doi:10.1088/1742-6596/544/1/012009.

215) Asher Yahalom “The Geometrical Meaning of Time - Some Cosmological Implications” Proceedings of 3rd International Conference on Mathematical Modeling in Physical Sciences (IC-MSQUARE 2014), 28–31 August 2014, Madrid, Spain. Journal of Physics: Conference Series (IOP Publishing), Volume 574, 012061, 2015. doi:10.1088/1742-6596/574/1/012061.

216) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Menachem Agassi and Eyal Ben-Dor “Interaction of MMW Radiation with Soil” Proceedings of the 13th Russian-Israeli Bi-National Workshop 2014 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials” September 15-18, 2014, Yekaterinburg, Russia.

217) Asher Yahalom “Simplified Variational Principles for non-Barotropic Magnetohydrodynamics - Preliminary Results” Proceedings of the 17th Israeli Plasma Science and Technology Conference, Ariel University, Feb. 16th, 2015.

218) Asher Yahalom “Simplified Variational Principles for Non-Barotropic Magnetohydrodynamics - Further Details” Proceedings of the Fourteenth Israeli-Russian Bi-National Workshop 2015 “Optimization of the Composition, Structure and Properties of Metals, Oxides, Composites, Nano and Amorphous Materials”, pages 23-34. 12-16 July 2015, Ariel University, Israel.

219) A. Yahalom “The Geometrical Meaning of Time in the Presence of Matter” proceedings of the 4th International Conference on Mathematical Modeling in Physical Sciences, IC-MSQUARE 2015, June 5-8, 2015, Mykonos, Greece. Journal of Physics: Conference Series **633** (2015) 012030 doi:10.1088/1742-6596/633/1/012030 IOP Publishing.

220) D. Greenberg, M. Byalsky & A. Yahalom “On the Wind Turbines Assessment by Real Options Technique in Israel” Proceedings of BIONATURE 2016: The Seventh International Conference on Bioenvironment, Biodiversity and Renewable Energies, June 26 - 30, 2016, Lisbon, Portugal

221) A. Yahalom "Variational Principles for Non-Barotropic Magnetohydrodynamics a Tool for Evaluation of Plasma Processes" Proceedings of the XV Israeli-Russian Bi-National Workshop “The optimization of composition, structure and properties of metals, oxides, composites, nano - and amorphous materials”, page 149-165, 26 - 30 September 2016, Yekaterinburg, Russian Federation.

222) A. Yahalom, V. Prihodko, Y. Dahan & M. Averbukh "Experimental Verification of Internal Resistance and Capacitance of CPQ2300S Li-Ion Ultracapacitors". Proceedings of the 2016 ICSEE International Conference on the Science of Electrical Engineering, November 16 – 18, 2016, Hilton Queen of Sheba, Eilat, Israel. DOI: 10.1109/ICSEE.2016.7806121

223) Michael Sulymanov, Asher Yahalom and Yosef Pinhasi "Real Time Fault Location in High Voltage Network Power Lines". Proceedings of the 2016 ICSEE

International Conference on the Science of Electrical Engineering, November 16 – 18, 2016, Hilton Queen of Sheba, Eilat, Israel. DOI: 10.1109/ICSEE.2016.7806061

224) Asher Yahalom "Preliminary Stability Analysis of a Friedman-Lemaitre-Robertson-Walker Universe" Proceedings of the 10th Biennial Conference on Classical and Quantum Relativistic Dynamics of Particles and Fields, IARD10, 6 - 9 June 2016, Ljubljana, Slovenia. IOP Conf. Series: Journal of Physics: Conf. Series 845 (2017) 012009. doi :10.1088/1742-6596/845/1/012009

225) Sergei Kolesnik, Moshe Sitbon, Asher Yahalom & Alon Kuperman "Assessment of Wind Resource Statistics in Samaria Region" Proceedings of the 16th International Scientific Conference on Engineering for Rural Development, P. 1409-1416, 24-26.05.2017. Jelgava, Latvia.

226) Asher Yahalom "Preliminary Energy Considerations in a Relativistic Engine" Proceedings of the Israeli-Russian Bi-National Workshop "The optimization of composition, structure and properties of metals, oxides, composites, nano - and amorphous materials", page 203-213, 28 - 31 August 2017, Ariel, Israel.

227) Asher Yahalom "A Simpler Variational Principle for Stationary non-Barotropic Ideal Magnetohydrodynamics". Proceedings of the Chaotic Modeling and Simulation International Conference CHAOS2017. P. 859-872 Editor: Christos H Skiadas, 30 May - 2 June 2017, Barcelona, Spain.

228) A. Yahalom, P. Domorad and M. Averbukh, "New approach for localization global maximum of solar array" 2017 19th European Conference on Power Electronics and Applications (EPE'17 ECCE Europe), Warsaw, 2017, pp. P.1-P.10. doi: 10.23919/EPE17ECCEEurope.2017.8099112

229) A. Yahalom, "A DLA model for turbulence". [Los-Alamos Archives - math-ph/0611065]. Proceedings of the 5th Annual International Conference on Mechanics and Mechatronics [ICMM 2017], December 15-17, 2017, Xiamen, China. http://www.icmm201http://www.icmm2017.org/ ISBN: 978-1-60595-541-4, Pages 79-81. DEStech Transactions on Engineering and Technology Research ISSN: 2475-885X.

230) Asher Yahalom "A Three Function Variational Principle for Stationary Non-Barotropic Magnetohydrodynamics" Proceedings of the 20th Israeli Conference on Plasma Science and its Applications (IPSTA 2018) Tel-Aviv University, 29th Jan. 2018, Israel.

231) Aharon Friedman, E. Dyunin, A. Naus, Y. Lurie, A. Yahalom, A. Gover "The Super-Radiant FEL Project in Ariel University" Proceedings of the 20th Israeli Conference on Plasma Science and its Applications (IPSTA 2018) Tel-Aviv University, 29th Jan. 2018, Israel.

232) A. Yahalom "The Fluid Dynamics of Spin - a Fisher Information Perspective" arXiv:1802.09331v2 [cond-mat.] 6 Jul 2018. Proceedings of the Seventeenth Israeli - Russian Bi-National Workshop 2018 "The optimization of

composition, structure and properties of metals, oxides, composites, nano and amorphous materials".

233) Yahalom A. (2018) Metage Symmetry Group of Non-barotropic Magnetohydrodynamics and the Conservation of Cross Helicity. In: Dobrev V. (eds) Quantum Theory and Symmetries with Lie Theory and Its Applications in Physics Volume 2. LT-XII/QTS-X 2017. Springer Proceedings in Mathematics & Statistics, vol 255. Springer Nature, Singapore (arXiv:1801.06443 [physics.plasm-ph]).

234) I. Chaimov, E. Dyunin & A. Yahalom "Correcting for FEL magnetic field distortions. The method of bilinear shimming" Proceedings of the XIII Symposium of Magnetic Measurements & Modelling (SMMM) Cracow – Wieliczka, Poland, 8th - 10th October 2018, pages 15-16.

235) Asher Yahalom "Dark Matter: Reality or a Relativistic Illusion?" Proceedings of Eighteenth Israeli - Russian Bi-National Workshop 2019 "The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials". 17 - 22 February 2019, Ein Bokek, Israel.

236) S. Rajput and A. Yahalom, "Preliminary Magnetic Energy Considerations in a Relativistic Engine: Mutual Inductance vs. Kinetic Terms" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-5. doi: 10.1109/ICSEE.2018.8646265

237) A. Yahalom, Y. Abitbul and M. Averbukh, "Preliminary Dynamic Parameters Comparison of Asymmetric (Ultimo CPQ 2300S, JSR Co.) and Double-Layer (BCAP3400, Maxwell Co.) Ultracapacitors" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-4. doi: 10.1109/ICSEE.2018.8646064

238) A. Yahalom, T. Minav and M. Averbukh, "Modified approach for global MPP finding under partial shading" 2018 IEEE International Conference on the Science of Electrical Engineering in Israel (ICSEE), Eilat, Israel, 2018, pp. 1-5. doi: 10.1109/ICSEE.2018.8646301

239) Asher Yahalom "A New Diffeomorphism Symmetry Group of Non-Barotropic Magnetohydrodynamics" Proceedings of the 32nd International Colloquium on Group Theoretical Methods in Physics (Group32), Czech Technical University, Prague, Czech Republic, 9-13 July 2018. Journal of Physics: Conf. Series 1194 (2019) 012113, IOP Publishing doi:10.1088/1742-6596/1194/1/012113.

240) Asher Yahalom "The effect of Retardation on Galactic Rotation Curves" Proceedings of the International Association for Relativistic Dynamics (IARD), Mérida, Yucatán, Mexico. 4 - 7 June 2018. J. Phys.: Conf. Ser. 1239 (2019) 012006, IOP Publishing https://doi.org/10.1088/1742-6596/1239/1/012006.

241) A. Yahalom "Topological Bounds from Label Translation Symmetry of Non-Barotropic MHD" Proceedings of the XXVI International Conference on Integrable Systems and Quantum symmetries (ISQS-26), Prague, Czech Republic, July 8-12, 2019. Journal of Physics: Conference Series 1416 (2019) 012041, IOP Publishing doi:10.1088/1742-6596/1416/1/012041.

242) Yossi Rabinowitz, Ariel Etinger, Asher Yahalom, Haim Cohen, and Yosef Pinhasi "Characterization of Diamond Colors via Microwave Spectroscopy" Published in the proceedings of the 2019 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), Date of Conference: 4-6 Nov. 2019. Date Added to IEEE Xplore: 16 January 2020. ISBN Information: Electronic ISBN: 978-1-5386-9549-4, USB ISBN: 978-1-5386-9548-7, Print on Demand (PoD) ISBN: 978-1-5386-9550-0, DOI: 10.1109/COMCAS44984.2019.8958264, Publisher: IEEE, Conference Location: Tel-Aviv, Israel.

243) Shailendra Rajput, Konstantin Komoshvili, Stella Aronov, Praveen Kumar Patnaik, Jacob Levitan and Asher Yahalom "Optimization of transmitted power of horn antenna for biomedical applications", Published in the proceedings of the 2019 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), Date of Conference: 4-6 Nov. 2019. Date Added to IEEE Xplore: 16 January 2020. ISBN Information: Electronic ISBN: 978-1-5386-9549-4, USB ISBN: 978-1-5386-9548-7, Print on Demand (PoD) ISBN: 978-1-5386-9550-0, DOI: 10.1109/COMCAS44984.2019.8958339, Publisher: IEEE, Conference Location: Tel-Aviv, Israel.

244) Asher Yahalom "The Fluid Dynamics of Spin - a Fisher Information Perspective and Comoving Scalars" Proceedings of CHAOS 2019, 12th Chaotic Modeling and Simulation International Conference. Editor: Christos H. Skiadas, Chania, Crete, Greece: 18-22 June 2019. Pages 341-354.

245) S. Rajput, A. Lugovskoy, M. Averbuch and A. Yahalom, "Porous Metal-Oxide Based Electrostatic Energy Generator" Proceedings of IEEE CANDO-EPE 2019 • IEEE International Conference and Workshop in Óbuda on Electrical and Power Engineering • Nov. 20-21, 2019, • Budapest, Hungary.

246) Yahalom A., Puzanov N. (2021) Stabilization in the Instability Region Around the Triangular Libration Points for the Restricted Three-Body Problem. In: Skiadas C.H., Dimotikalis Y. (eds) 13th Chaotic Modeling and Simulation International Conference. CHAOS 2020. Springer Proceedings in Complexity. Springer, Cham. https://doi.org/10.1007/978-3-030-70795-8_74

247) Asher Yahalom & Natalia Puzanov "Time Dependent Stabilization of a Hamiltonian System" Proceedings of the International Conference on Mathematical Modelling in Physical Sciences, September 7-10, 2020, Tinos island, Greece. 2021 J. Phys.: Conf. Ser. 1730 012089.

248) Rajput Shailendra & Yahalom Asher "Energy Transformations in a Relativistic Engine of the Third Order: How to Avoid Radiation Losses" Proceedings of the 19th Israeli-Russian bi-national Workshop. 2020.

249) S. Rajput, A. Barbora, K. Komoshvili, J. Levitan, A. Yahalom and S. Liberman-Aronov, "Scrutinizing Effects of 75 GHz MMW Irradiation on Biological Functions of Yeast," 2020 IEEE MTT-S International Microwave Biomedical Conference (IMBioC), Toulouse, France, 2020, pp. 1-4, Doi: 10.1109/IMBIoC47321.2020.9384906.

250) A. Yahalom "The Cosmological Decrease of Galactic Density and the Induced Retarded Gravity Effect on Rotation Curves" Proceedings of IARD 2020. 2021 J. Phys.: Conf. Ser. 1956 012002.

251) A. Yahalom "Effects of Higher Order Retarded Gravity on Galaxies" Proceedings of 1st Electronic Conference on the Universe. Phys. Sci. Forum 2021, 2, 26. https://doi.org/10.3390/ECU2021-09328

252) M. Nabwani, Y. Pinhasi and A. Yahalom, "Retardation in Service of Real Time Fault Detection and Location," 2021 23rd European Conference on Power Electronics and Applications (EPE'21 ECCE Europe), 2021, pp. P.1-P.9.

253) A. Yahalom "The weak field approximation of general relativity, retardation, and the problem of precession of the perihelion for mercury" Proceedings of the International Conference: COSMOLOGY ON SMALL SCALES 2022 Dark Energy and the Local Hubble Expansion Problem, Prague, September 21-24, 2022. Edited by Michal Krizek and Yuri V. Dumin, Institute of Mathematics, Czech Academy of Sciences.

Conference Papers (not refereed)

254) Asher Yahalom & Yosef Pinhasi "Tailoring Materials for the control of Millimeter Wave Propagation" Third International Conference on Mathematical Modeling of Metal Technologies (MMT 2004), 2-82-98 September 6-10, 2004 Ariel, Israel.

255) A. Yahalom, R. Englman and Y. Pinhasi "Covariant Formulation of the Dynamics in a Dissipative Dielectric Obtained from a Simplified Lagrangian." [Los-Alamos Archives - physics/0605060]. Proceedings of the Fourth International Conference on Mathematical Modeling of Metal Technologies (MMT 2006), September 11-15, 2006 Ariel, Israel.

256) Asher Yahalom "Simplified Variational Principles for Stationary Barotropic Fluid Dynamics" Proceedings of the Fifth International Conference on Mathematical Modeling of Metal Technologies (MMT 2008), Ariel Israel, September 8 - 12, 2008.

257) Asher Yahalom "Barotropic Magnetohydrodynamics as a Four Function Field Theory with Non-Trivial Topology and Aharonov-Bohm Effects" Proceedings of the Sixth International Conference on Mathematical Modeling and Computer Simulation of Materials Technologies MMT 2010, Part 1 287-296, Ariel, Israel. [arXiv:1005.3977].

258) Miron Tuval and Asher Yahalom "A Permanent Magnet Relativistic Engine" Proceedings of the Ninth International Conference on Materials Technologies and Modeling MMT 2016, Part 1 121-128, Ariel, Israel. [arXiv: 1507.02897].

259) M. Nabwani, M. Suleymanov, Y. Pinhasi & A. Yahalom "Retardation in the Service of Real Time Fault Detection and the Difference Between Distributed and Lumped Fault Models" Proceedings of the Material Technologies and Modeling the Tenth International Conference, Ariel University, Ariel, Israel, August 20 – 24, 2018.

260) A. Yahalom "Retardation Effects in Electromagnetism and Gravitation" Proceedings of the Material Technologies and Modeling the Tenth International Conference, Ariel University, Ariel, Israel, August 20 – 24, 2018. (arXiv:1507.02897v2)

Refereed Popular Papers

261) A. Yahalom "FLOW-SIM Ltd. Simulations Software" AIAA Student Journal Vol 40 #1 (2002).

262) A. Yahalom "On God's knowledge and human choice" A monthly page on Jewish Culture, The College of Judea & Samaria (2004).

263) אשר יהלום "תחבורה עתידנית – מהירות האור" נכון, כתב עת לאוטופיה ולדיסטופיה בספרות, גיליון 7 • נובמבר 2021 • כסלו תשפ"ב (עמודים 116-133).

264) אשר יהלום "תחבורה עתידנית – מהירות האור 1: פתרונות במדע הבדיוני" הידען, מאמר אורח דצמבר 3, 2021.

265) אשר יהלום "תחבורה עתידנית – מהירות האור 2: האם חוקי הפיזיקה מאפשרים זאת" הידען, מאמר אורח דצמבר 3, 2021.

266) אשר יהלום "המנוע היחסותי החשמלי ותחבורה עתידנית" חשמל ואנרגיה – כתב עת למקצועות החשמל, אנרגיה ומיזוג אוויר, גיליון 91 מאי 2022, עמודים 30-35.

267) אשר יהלום "האם יש עתיד לעתידנות, ואם הכל צפוי איך הרשות נתונה? דיון מדעי פילוסופי לאור הפיזיקה הקלסית והקוונטית ותורת הכאוס" נכון, כתב עת לאוטופיה ולדיסטופיה בספרות, גיליון 9 • אוקטובר 2022 • תשרי תשפ"ג (עמודים 35-53).

Accepted Papers

268) S. Kolesnik, Y. Rabinovitz, M. Byalsky, A. Yahalom and A. Kuperman "Assessment of Wind Speed Statistics in Samaria Region" accepted as a book chapter in "Advances in Clean Energy Harvesting and Application of AI", River Publishers, 16 Feb 2022.

269) Michal Wagman, Lawrence P. Horwitz, and Asher Yahalom "Applying Retardation Theory to Galaxies" accepted to the IARD 2022 proceedings.

Press

1. "פיזיקאי ישראלי אישש את הנחת היסוד של איינשטיין"
http://www.nfc.co.il/ArticlePrintVersion.aspx?docId=165592&subjectID=1
יום א 22 ביוני 2008.

2. "פיסיקאי ישראלי מאשש את הנחותיו של איינשטיין" YNET 23.6.08.
http://www.hayadan.org.il/wp/israeli-proffessor-proved-and-empowerd-einstein-theory-2306085/
http://www.ynet.co.il/articles/0,7340,L-3559046,00.html
http://www.underwar.co.il/forum/forum_posts.asp?TID=8494&PN=1

3. "איינשטיין יכול להירגע: אין צורך באקסיומות" מקור ראשון 23.6.08 עמוד 11

4. "אפקט אהרונוב-בוהם במגנטוהידרודינמיקה" הידען 12.4.10
http://www.hayadan.org.il/wp/aharonov-bohm-effect-1204101

5. אלכס דורון "אנרגיה חשמלית ללא חוטים – פרופ' אשר יהלום"
http://www.energianews.com/article.php?id=5742

6. אלכס דורון 7/8/2010 "ואת הפריזר נחבר לים: חשמל ירוק הדור הבא" NRG מעריב, עסקים שישי.
http://www.nrg.co.il/online/1/ART2/141/870.html?hp=1&loc=5&tmp=5994

7. שאול כהן 04/01/2011 "ההשכלה הגבוה בישראל בנפילה חופשית מטה" רוטר.נט.
http://www.kr8.co.il/BRPortal/br/P102.jsp?arc=117651

8. שאול כהן 13/01/2011 "פרופ' יהלום: ההשקעה בהשכלה גבוהה לא מגיעה למקום הנכון" רוטר.נט.
http://www.kr8.co.il/BRPortal/br/P102.jsp?arc=120071

9. שאול כהן 25/01/2011 " פרופ' יהלום: טעות גדולה שממשלות ישראל לא עודדו פיזור אוכלוסין" רוטר.נט.
http://www.kr8.co.il/BRPortal/br/P102.jsp?arc=123674

10. Electronic Journal of Theoretical Physics (EJTP ISSN 1729-5254) Book Reviews: "Advances in Classical Field Theory" by Asher Yahalom.

11. הידען 21.09.11 "ספר חדש: קידמה בתורת השדות הקלאסית"
http://www.hayadan.org.il/advances-in-classical-filed-theory-2109111/

12. Kr8 ישראלי פטריוטי 22.09.11: "ספר חדש: קידמה בתורת השדות הקלאסית"
http://www.kr8.co.il/BRPortal/br/P102.jsp?arc=204319

13. Kr8 ישראלי פטריוטי 26.09.11: "פרופ' יהלום: מציאת חלקיקים מהירים ממהירות האור אפשרית"
http://www.kr8.co.il/BRPortal/br/P102.jsp?arc=205531

14.

24-7 press release PISCATAWAY, NJ, June 16, 2012.

Os news articles: New "Proceedings of the IEEE" Presents Comprehensive 21st Century Review of Aerospace Communications PISCATAWAY, NJ, June 16, 2012.

15. טיפול בסרטן ריאה
http://www.timesofisrael.com/taking-aim-at-cancer-israeli-danish-team-finds-a-new-way-to-zap-malignant-cells/

Cancelling cancer cells with new radiation ISRAEL21c

http://www.mideastoutpost.com/archives/occupying-the-laboratory-by-ruth-king.html

http://www.isranet.org/wednesday%E2%80%99s-%E2%80%9Cnews-review%E2%80%9D-round-82

http://siliconwadi.fr/7557/radiotherapie-un-laser-developpe-en-israel-prend-pour-cible-uniquement-les-cellules-cancereuses

http://jokopost.com/medecine/%D7%A8%D7%A4%D7%95%D7%90%D7%94-%D7%93%D7%91%D7%A8%D7%99%D7%9D-%D7%91%D7%A9%D7%9D-%D7%90%D7%95%D7%9E%D7%A8%D7%9D/5886/

http://www.doctors.co.il/ar/18269/%D7%A1%D7%A8%D7%98%D7%9F+%D7%A8%D7%99%D7%90%D7%95%D7%AA%3A+%D7%94%D7%A7%D7%A8%D7%A0%D7%95%D7%AA+%D7%9E%D7%A1%D7%95%D7%92+%D7%97%D7%93%D7%A9

http://www.hayadan.org.il/gama-rays-against-lung-cancer-3103158

יתד נאמן רפואה, יום שלישי כה בניסן תשעה עמוד 44: חידוש המאבק למיגור הסרטן "הקרנה אלקטרומגנטית של תאי סרטן ריאות מובילה להשמדתם".

טבע הדברים: טבע בשטח "מחקר חדש מאוניברסיטת אריאל מביא בשורה חדשה לטיפול בסרטן ריאות" 10.5.15, עמוד 8.

מגזין "סילבוס" 5/15 עמוד 15 "בשורה חדשה לטיפול בסרטן ריאות".
מגזין "סילבוס" 6/15 עמוד 13 "מחקר חדש מאוניברסיטת אריאל מביא בשורה חדשה לטיפול בסרטן ריאות: הקרנה אלקטרומגנטית על תאי סרטן ריאות גרמה לתמותה מלאה שלהם".

16. המרצים באריאל מאיימים בשביתה
http://www.haaretz.co.il/news/education/.premium-1.2103233
http://www.kipa.co.il/now/53357.html
http://www.inn.co.il/News/Flash.aspx/417564
http://www.ynet.co.il/articles/0,7340,L-4430038,00.html
http://www.news247.co.il/read.php?url=http://mivzakim.net/r/3109428/rss

הלימודים באוניברסיטת אריאל ייפתחו כסדרם
http://www.nrg.co.il/online/1/ART2/513/041.html?hp=1&cat=402
http://www.kipa.co.il/now/53795.html
http://rotter.net/forum/scoops1/54112.shtml

http://www.mivzaklive.co.il/archives/77166

17. הסכם העסקה חדש עם הסגל הבכיר באריאל
http://www.inn.co.il/News/News.aspx/276308
http://www.news1.co.il/Archive/001-D-348596-00.html
http://news.walla.co.il/?w=/22/2746782

18. אופיר פלום
א. סטודנט על הרצף האוטיסטי יציג את עבודתו בכנס ארגון הפיזיקאים
ב. אופיר פלום סטודנט לפיזיקה מאוניברסיטת אריאל, הנמצא על הרצף האוטיסטי יציג את עבודת המסטר שלו בכנס האגודה הישראלית לפיזיקה
ג. מאסטר של כבוד
ד. אופיר פלום סטודנט לפיזיקה מאוניברסיטת אריאל, הנמצא על הרצף האוטיסטי יציג את עבודת המסטר שלו בכנס האגודה הישראלית לפיזיקה (סילבוס, מגזין סטודנטים ארצי, ינואר 2015 עמוד 6).

19. חיבור בין ניוטון, איינשטיין ופרופסור מאריאל
http://m.nana10.co.il/Article/1138955?sid=120
http://news.nana10.co.il/Article/?ArticleID=1138955

20. חוקרים ישראלים: מצאנו שיטה חדשה להערכת כדאיות כלכלית של טורבינות רוח Tashtiot, פורטל תשתיות תעשייה ואנרגיה 9.10.15

21. ראיון לכבוד יום הולדתו של אייזיק ניוטון:

http://www.iba.org.il/schedule/program.aspx?scode=1858803 החל מהדקה 17:45

http://www.nrg.co.il/online/13/ART2/744/100.html?hp=13&cat=138&loc=10

https://www.youtube.com/watch?v=_j7-2N0Are4

22. חוגגים יום הולדת לאלברט איינשטיין:
http://www.nrg.co.il/online/13/ART2/760/964.html?hp=13&cat=138&loc=21

http://www.inn.co.il/News/News.aspx/318043

http://www.iba.org.il/program.aspx?scode=2015411 (מהדקה ה 33)

23. המרחב, הזמן ומה שביניהם, גלילאו הצעיר יולי 2016.
24. המנוע היחסותי:
http://peoplebroadcasting.org/mero/index.php?controller=post&action=view&id_post=169

http://tech.walla.co.il/item/3025013

http://thepulse.co.il/35070-2016-12-20-09-35-09

http://energynews.co.il/?p=18675

http://www.93fm.co.il/radio/368946/

http://www.coolair.co.il/?item=15612&section=64

http://hinet.co.il/MagazineArticles/Article.asp?CategoryID=13208&ArticleID=5654

אשר יהלום, המנוע היחסותי, מוסף מיוחד GREEN ENERGY , new-tech magazine, עמודים 54-51, 31.01.17.

מנוע ללא הספקת דלק משתמש באנרגיה סולארית, מוסכים 235, 14.03.17, עמוד 62.

25. זכיית קבוצת הכדורסל של היכל יהודה בגביע בתי הכנסת הארצי:
   א. אור וייל (צילומים תומי הרפז) "הגביע הקדוש" ידיעות בקעת-אונו, 17.2.17, עמוד השער ועמודים 45-44.
   ב. אהרל'ה ויסברג "ממלכת יהודה" שביעי עיתון לציבור הדתי, 17.2.17, גיליון 245 עמוד 22.

26. טבע הדברים, עמוד 12 "לפני 98 שנה, בתאריך 29.5.1919 נמצאה הוכחה לתורת היחסות הכללית בעת ליקוי חמה" 14.6.17.

27. הודעה על אי פתיחת שנת הלימודים 15.10.2017:

https://www.haaretz.co.il/news/education/1.4513481

https://www.themarker.com/career/1.4513575

http://www.maariv.co.il/breaking-news/Article-602633

https://www.0404.co.il/?p=77244

http://www.davar1.co.il/89785/

http://www.srugim.co.il/218125-%D7%90%D7%95%D7%A0%D7%99%D7%91%D7%A8%D7%A1%D7%99%D7%98%D7%AA-%D7%90%D7%A8%D7%99%D7%90%D7%9C-%D7%A9%D7%A0%D7%AA-%D7%94%D7%9C%D7%99%D7%9E%D7%95%D7%93%D7%99%D7%9D-%D7%9C%D7%90-%D7%AA%D7%99%D7%A4%D7%AA

http://rotter.net/forum/scoops1/431549.shtml

https://www.haaretz.com/israel-news/.premium-1.817347

28. הודעה על אי פתיחת הסמסטר 05.03.2018
https://www.ynet.co.il/articles/0,7340,L-5144158,00.html

https://glz.co.il/%D7%92%D7%9C%D7%A6/%D7%AA%D7%95%D7%9B%D7%A0%D7%99%D7%95%D7%AA/%D7%91%D7%95%D7%A7%D7%A8-%D7%98%D7%95%D7%91-%D7%99%D7%A9%D7%A8%D7%90%D7%9C/%D7%91%D7%95%D7%A7%D7%A8-%D7%98%D7%95%D7%91-%D7%99%D7%A9%D7%A8%D7%90%D7%9C04-03-2018-

0601/%D7%A4%D7%A8%D7%A1%D7%95%D7%9D-
%D7%A8%D7%90%D7%A9%D7%95%D7%9F-
%D7%94%D7%A1%D7%92%D7%9C-%D7%A9%D7%9C-
%D7%90%D7%95%D7%A0%D7%99-
%D7%90%D7%A8%D7%99%D7%90%D7%9C-
%D7%99%D7%A9%D7%91%D7%95%D7%AA-
%D7%91%D7%A4%D7%AA%D7%99%D7%97%D7%AA-
%D7%A1%D7%9E%D7%A1%D7%98%D7%A8-%D7%91-
%D7%9E%D7%99%D7%9B%D7%9C-%D7%A6%D7%99%D7%9F

29. פטירתו של סטיבן הוקינג (1942-2018):

https://www.facebook.com/ArielUniversity/videos/10155021476582030/

http://www.pressreader.com/israel/jerusalem-post/20180315/282166471705966

http://www.jpost.com/International/Prof-Stephen-Hawkings-love-hate-relationship-with-Israel-545123

http://yournewswire.com/stephen-hawking-israel-zionism-evil/

https://ancienprofesseur.fr/2018/03/16/le-professeur-stephen-hawking-a-ete-le-plus-grand-critique-disrael-le-sionisme-est-un-mal/

פרופסור אשר יהלום "מאחד התיאוריות" מעריב יום ה, כ"ח באדר תשע"ח, 15.3.18, גיליון 21,537, עמוד 1 ועמודים 16-17.

30. שביתה במוצאי פסח תשע"ח

https://www.themarker.com/news/education/1.5977196

https://www.0404.co.il/?p=145316

31. חשמל ואנשים, גיליון 72, 31.5.18, עמוד 52, "טעימה מכנס התאימות" משה נצר.
32. "פיתוחי 2018 צריכת דלק מופחתת זיהוי חומרי נפץ חומר אפל ועוד" פורטל הכרמל 9.9.18.
33. "פיתוחים פורצי דרך בתחומי התחבורה, האנרגיה והתקשורת הוצגו לראשונה בישראל" Chiportal אבי בליזובסקי, חמישי, 13 ספטמבר 2018 00:24
34. "אוניברסיטת אריאל אירחה כנס MMT הבינלאומי בטכנולוגיה ומדע" 05/09/2018 11:30 | גלי אזולאי.
35. אפיון והערכת יהלומים במצבם הגולמי במכשור מדויק וזול יותר 14/11/2018 כתב כאן ישראל, עיתון האינטרנט של ערי ויישובי ישראל.
36. חייזרים שלחו מרגלים אחרינו? שמעון כהן , ה' בכסלו תשע"ט 13/11/18 07:28, ערוץ 7.
37. הפרופ' הישראלי שהטיל ספק בקיום החומר האפל זכה בציון לשבח. חדשות MIVZAKLIVE 21/05/19.
38. מחקר המטיל ספק בקיום החומר האפל YNET TV, 22/05/2019.
39. הכירו את הפרופ' לפיזיקה שטוען שהחומר האפל שמסביר חלק מהתעלומות הגדולות ביקום אינו קיים, מגזין G 15.06.19 כתבה מאת דרור פויר. (גלובס | גלובס - מגזין | g כתב העיתון, פורסם: 13.06.2019 | עמוד: 32)
40. נפילתו של האביר האפל, 16/06/2019 ראיון עם אראל סג"ל fm103.

41. פרופסור אשר יהלום מטיל ספק בקיום החומר האפל – וזאת בהתאם לתורתו של איינשטיין חגית רימון מראיינת, כללי, כתבות, ראיונות / אתר אישה / 28 בספטמבר 2019 22:26 /
42. משחק מילים – פודקאסט 23: פרופסור אשר יהלום – לוקח את איינשטיין ברצינות (https://www.youtube.com/watch?v=k6dcoAoTJVY)
43. IEEE Electromagnetic Compatibility Magazine – Volume 8 – Quarter 3, pages 8-21, 2019. Chapter Chatter, Dennis Lewis, Associate Editor.
44. על האל המסתתר: ראיון רדיו ברשת ב של ליאת רגב עם פרופסור שושני על ספרו המשותף עם פרופסור יהלום, מתחיל בדקה ה 51:10 ומסתיים בדקה 1:09:53. 13.12.19
https://www.kan.org.il/radio/player.aspx?ItemId=116489
45. וַכַּאֲשֶׁר יַעֲנוּ אֹתוֹ כֵּן יִרְבֶּה וְכֵן יִפְרֹץ – סיפורה של אוניברסיטת אריאל. אוניברסיטת אריאל עברה דרך חתחתים עד שהוכרה כאוניברסיטה וגם היום היא נתקלת בקשיים ובהתנגדויות בשל היותה ממוקמת מעבר לקו הירוק. בסדרה של מאמרים מספר פרופ' אשר יהלום המרצה שם יותר מ-20 שנים על תלאותיה של אוניברסיטת אריאל ועל המאבק שלה באוניברסיטאות הוותיקות. דְיוֹמָא רביעי, 29 ביולי 2020.
46. מה שקורה מחר 84 על נקודת הממשק שבין המדע לבין האל (מדקה 38.15) - מה שקורה מחר 10.08.20. גלי צהל עם המראיין רמי שני.
https://www.facebook.com/rami.shani.5/posts/10157845953623823
47. האם ניתן לייצר אנרגיה נקייה מהיתוך תרמו-גרעיני בדומה לשמש? שלושה שיודעים, רשת בית עם רז חסון.
https://omny.fm/shows/three-who-know/8e846bf3-abb3-4768-8e68-acd000f0b067?fbclid=IwAR0dgHemfCu0SUs1YJVCd46eARddZhTpx45UDmjjU_m4Zf_nYBrsgmhUPvI
החל מהדקה ה 51:04
48. אינגליש קייס, בן דרור ימיני ידיעות אחרונות המוסף לשבת 18.2.21: פרופ' אשר יהלום מאוניברסיטת אריאל יזם קריאה של אנשי אקדמיה לאימוץ ההגדרה של IHRA לאנטישמיות.
49. כנס חוג הפרופסורים לחוסן מדיני וכלכלי לקראת הבחירות (9.3.21).
50. חוג הפרופסורים לחוסן מדיני וכלכלי גילוי דעת לקראת הבחירות. (19.3.21 ישראל היום עמוד 21)
51. תנועות הימין: "אומרים לא לממשלה הנתמכת על ידי תומכי טרור" כ"ב בניסן תשפ"א 04.04.2021 ישראל רובין, קול חי.
ארגוני המחנה הלאומי בקריאה: "כל מפלגה שבין חבריה תומכי טרור תדחה על הסף" אנה ברסקי 04/04/2021 11:21, מעריב.
ארגונים לאומיים למפלגות הציוניות: "אל תתנו יד לממשלה הנתמכת בידי תומכי טרור" חדר מצב פורסם 04/04/21 11:23
11 ארגוני ימין בקריאה לבנט סער ונתניהו: "לא לתמיכת תומכי טרור" הלל ביטון רוזן, כ"ב בניסן ה'תשפ"א (4 באפריל 2021), 20 הקול של העם.
לחץ בימין על נתניהו, בנט וסער ערוץ 7 , כ"ב בניסן תשפ"א 04/04/21.
הפגנות ועצומות בימין במחאה על הכוונה לצרף רשימה ערבית לממשלה חדשות כיפה כב בניסן התשפא, 04 באפריל, 2021 10:27.
11 Leading Nationalist Groups Urge Netanyahu, Sa'ar, and Bennett to Coalesce by Jewish Press News Desk - April 4, 2021.
52. פרשת פרופ' גולדרייך: המחקר נפגע מפוליטיזציה של המדע, ערוץ 20 11.4.2021
53. ציון לשבח מהקרן למחקרי כבידה לפרופ' אשר יהלום מאריאל המציע חלופה לחומר האפל , הידען, אבי בליזובסקי, 12 ליוני, 2021.
54. ראיון לרגל ציון לשבח מטעם הקרן למחקרי כבידה בתאגיד כאן – בתוכנית 3 שיודעים מנחה דודו ארז – מדקה 27.30 https://www.kan.org.il/radio/player.aspx?ItemId=216091 15.06.21.
https://www.kan.org.il/Podcast/item.aspx?pid=23497 מדקה 25.30
55. נושא: חופש הביטוי באקדמיה, פורסם 05.07.21, 12:00 | עודכן 06.07.21, 06:57 גלית דיסטל אטבריאן
https://www.knesset.tv/committees/conventions/video/35017//
נציגי חוג הפרופסורים: ד"ר מרדכי קידר - אחרי שעה ו 10 דקות, פרופ' אשר יהלום - אחרי שעה ו 22 דקות
56. "המשוררת פוגשת את הפילוסוף" אשר יהלום, מוסף "שבת" של מקור ראשון, 01 אוקטובר 2021.

57. Lawrence Horwitz "Can the existence of God be proven?", Jerusalem Post, Opinion, December 16, 2021. (Also, in print in the "Books" section, under the name: "Reaching for the infinite" December 17, 2021). A critique of the book "The Elusive God" By Y. Shoshani & A. Yahalom.
58. חדשות האקדמיה: תרומה, פרסים וגם ניתוח מידע ונתונים, 19 למאי 2022, ציון לשבח מהקרן למחקרי כבידה לפרופ' מאוניברסיטת אריאל, YNET, סביבה ומדע.
59. אל האינסוף - הפודקאסט של החלל והזמן: פרק 102 - ראיון עם הפרופסור אשר יהלום. (התפרסם 9.9.22) וידאו.
60. InterMountain Christian News Dr Anthony Harper interview on the Elusive God
61. Giant Arc widerspricht kosmologischem Prinzip • Neues ART-Modell ohne Dunkle Materie | Jenny Wagner (Starting after the 16th minute)

Editorial Activity

1. Editor of "Advances in Relativistic Statistical Mechanics" a special issue of Entropy (ISSN 1099-4300). (2016-2020)
2. Editor of "Symmetry in Magnetohydrodynamics" a special issue of Symmetry (ISSN 1099-4300). (2020)
3. Editorial Board Member: Entropy (ISSN 1099-4300). (2020-)
4. Editor in Frontiers in Physics - Fluid Dynamics. (2022-)

Referee Activity

1) Referee for BSF (2003).

2) Referee for Physics Letters (2003).

3) Referee for Journal of Physical Chemistry (2003).

4) Referee for FEL 2005 conference proceedings, Stanford, California (2005).

5) Referee for WSEAS (2006). (Two papers)

6) Referee for Israel Journal of Chemistry (2007).

7) Chairman of a professional promotion committee (2007).

8) Referee for Optics Communications (2008).

9) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2008). (Two papers)

10) Referee for ICNAAM 2009 (International Conference of Numerical Analysis and Applied Mathematics 2009).

11) Referee for Journal of Electromagnetic Waves and Applications JEMWA (three papers) (2009).

12) Referee for "Infrared Physics & Technology" (2009).

13) Referee for WSEAS (2009).

14) Referee for Journal of Microwave Power & Electromagnetic Energy (2010).

15) Referee for Journal of Electromagnetic Waves and Applications JEMWA (five papers) (2010).

16) Referee for Journal of Adhesion Science and Technology (JAST) (2010).

17) Referee for Mehta Press (2010).

18) Referee for Journal of Electromagnetic Waves and Applications JEMWA (six papers) (2011).

19) Referee for the URSI Radio Science Bulletin (2011).

20) Reviewer for Mathematical Reviews (2011).

21) Referee for Acta Physica Polonica (two papers) (2011).

22) Reviewer for Foundations of Physics (2012).

23) Evaluator of research proposals for the ministry of science (2012).

24) Member of a ministry of science committee for the evaluation of research proposals (2012).

25) Referee for Journal of Electromagnetic Waves and Applications JEMWA (three papers) (2012).

26) Referee for WSEAS (2012).

27) Referee for Applied Physics A (2012).

28) Member of the MSc Committee of Mr. Yitzhak Shtaienbach Tel-Aviv University (2012).

29) Member of the Goldsmith Prize Committee (2013).

30) Reviewer for Mathematical Reviews (2013).

31) Referee for Journal of Theoretical Chemistry (2013).

32) Referee for Journal of Vortex Sciences and Technology (2013).

33) Member of the Grunbaum Award Committee (2014).

34) Member of the MSc Committee of Mr. Dimitri Borodin Ariel University (2014).

35) Member of the MSc Committee of Mr. Y. Rabinovitz Ariel University (2014).

36) Reviewer for Foundations of Physics (2014).

37) Member of the Grunbaum & Goldsmith Award Committee (2015).

38) Reviewer for Przeglad Elektrotechniczny (Electrical Review) – two papers (2015).

39) Referee for the Royal Society – two papers (2015).

40) Referee for Remote Sensing (2015).

41) Reviewer for Foundations of Physics (2015) (2 papers).

42) Referee for Astrophysics and Space Science (2015).

43) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2015).

44) Reviewer for European commission (2015) (4 research proposals).

45) Reviewer of a book for Nova Publications (2016).

46) Referee for EPJC (2016).

47) Member of the Grunbaum Award Committee (2016).

48) Referee for Physics Letters A (2016). (2 papers)

49) Reviewer for Foundations of Physics (2016). (3 papers)

50) Reviewer for Remote Sensing (2016). (3 papers)

51) Referee for Chaos (2016). (2 papers)

52) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2016). (2 papers)

53) Referee for Archives of Electrical Engineering (2017). (6 papers)

54) Referee for Geophysical & Astrophysical Fluid Dynamics (2017). (2 papers)

55) Referee for Mathematics (2017).

56) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2017). (1 paper)

57) Reviewer for Foundations of Physics (2017). (2 papers)

58) Reviewer for Foundations of Physics (2018). (3 papers)

59) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2018). (2 papers)

60) Member of a Professional Promotion Committee for the rank of an associate professor (2018). (2 times)

61) Member of the Goldsmith Award Committee (2018).

62) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2019). (4 papers)

63) Referee for Journal of Marine Science and Engineering (2019). (4 papers)

64) Referee for Journal of Mathematical Physics (2019). (3 papers)

65) Referee for IEEE Access (2019).

66) Referee for Plasma Science and Technology (2019). (2 papers)

67) Reviewer for Foundations of Physics (2019). (3 papers)

68) Referee for Physica Scripta (2019). (2 papers)

69) Member of a PhD proposal committee (2019).

70) Member of a MSc thesis evaluation committee (2019). (2 students)

71) Member of the Eichenbaum Prize committee (2019).

72) Member of a BSc project evaluation committee (2019). (1 students)

73) Referee for AMSE-2019 proceedings (2019).

74) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2020). (3 papers)

75) Referee for Journal of Marine Science and Engineering (2020). (1 paper)

76) Referee for Bioelectromagnetics (2020). (1 paper)

77) Reviewer for Foundations of Physics (2020). (2 papers)

78) Reviewer for Water (2020). (3 papers)

79) Referee for Journal of Physics and Chemistry of Solids (2020). (3 papers)

80) Referee for Mathematics (2020). (1 paper)

81) Referee for Physica Scripta (2020). (2 papers)

82) Referee for Energies (2021). (1 paper)

83) Referee for the Royal Society (2021). (1 paper)

84) Reviewer for Foundations of Physics (2021). (1 paper)

85) Referee for the European Physical Journal C (2021). (1 paper)

86) Referee for Journal of Electromagnetic Waves and Applications JEMWA (2021). (3 papers)

87) Referee for Class. Quantum Grav. – CQG (2021). (2 papers)

88) Referee on a BSc final project by Mr. Omri Namir "Development of a System for Measuring High Power Radiation" (2021).

89) Reviewer of a PhD thesis by Ms. Yafit Orbach "Acceleration in Magnetic Field" (2022).

90) Referee for Advances in High Energy Physics (2022).

7. CONFERENCE PRESENTATIONS & SPECIAL LECTURES

International Conference Presentations

1) S. Efimov, A. Abramovich, A. L. Eichenbaum, M. Kanter, A. Gover, Y. Pinhasi, J. Sokolowski, M. Tecimer, A. Yahalom "Energy Retrieval System of the Israeli EA-FEL", 21st International Free Electron Laser Conference and 6th FEL Applications Workshop, Hamburg, Germany # Mo-P-21 (1999).

2) Y. Pinhasi, Yu. Lurie, A. Yahalom "Method and Simulation of Wide-Band Interaction in Free-Electron Lasers", 22nd International Free Electron Laser Conference and 7th FEL Users Workshop, Durham, North Carolina USA (August 2000).

3) A. Abramovich, Y. Pinhasi, A. Yahalom, D. Bar-Lev, S. Efimov, A. Gover "Study and optimization of power output and electron beam energy spread in a Free Electron Laser oscillator", 22nd International Free Electron Laser Conference and 7th FEL Users Workshop, Durham, North Carolina USA (August 2000).

4) A. Gover, A. L. Eichenbaum, S. Efimov, J. Sokolowski, M. Tecimer, Y. Yakover, A. Abramovich, M. Canter, Y. Pinhasi, A. Yahalom, I. Schnitzer, "Long Wavelength User Applications with the Tandem Electrostatic Accelerator FEL", 22nd International Free Electron Laser Conference and 7th FEL Users Workshop, Durham, North Carolina USA (August 2000).

5) R. Englman and A. Yahalom "The Jahn-Teller Effect: a Permanent Presence in the Frontiers of Science" The 15th International Symposium on the Jahn – Teller Effect and NATO advanced research workshop on colossal magneto-resistance and

vibronic interactions " Editors M. E. Kaplan and G. Zimmerman, Amsterdam (August 2000).

6) A. Yahalom "Molecular Collisions and Remaining Effect on the Phase of the Product Wave Function" MOLEC 2000 The XIIIth European Conference on Dynamics of Molecular Collisions September 17-22, 2000, Jerusalem.

7) R. Englman & A. Yahalom "Only Quadratic Error in the Construction of a Finite Diabatic Set" MOLEC 2000 The XIIIth European Conference on Dynamics of Molecular Collisions September 17-22, 2000, Jerusalem.

8) A. Yahalom, Y. Pinhasi, Y. Lurie, A. Abramovich, M. Canter, Z. Burshtein, A. Gover, A. L. Eichenbaum, J. Sokolowski, Y. Yakover, I. Schnitzer and Y. Shiloh "Free Electron Laser Radiation for Dielectric Spectroscopy in Physical, Chemical and Biological Applications" 1ST International Conference On Dielectric Spectroscopy in Physical, Chemical and Biological Applications, DS 2001, March 12-15, 2001, Jerusalem.

9) R. Englman & A. Yahalom "Physics and Chemistry of von Neumann – Wigner – Teller Degeneracies (Conical Intersections)" Physics & Chemistry of Quantum Systens 14-18 May 2001, Debrecen, Hungary.

10) A. Yahalom, M. Baer, and R. Englman "Switching of Geometric Phase in Degenerate Systems" Charles Coulson Summer School on the Quantum Dynamics of Molecular Systems 15-25 August 2001, Oxford, England.

11) Asher Yahalom, Yosef Pinhasi, Yuri Lurie, and Amir Abramovich "Spectral and Variational Principles of Electromagnetic Field Excitation in Wave Guides" , The 23rd International Free Electron Laser Conference and the 8th FEL Users Workshop 20th to 24th August 2001, Darmstadt, Germany.

12) Yosef Pinhasi, Yuri Lurie, Asher Yahalom and Amir Abramovich "Space-frequency model of amplified spontaneous emission and super-radiance in free electron laser operating in the linear and non-linear regimes" , The 23rd International Free Electron Laser Conference and the 8th FEL Users Workshop 20th to 24th August 2001, Darmstadt, Germany.

13) R. Englman and A.Yahalom "A Variational Procedure for Stochastic Processes", The 27th Conference of the Middle European Cooperation in Statistical Physics, 7-9 March 2002, Sopron, Hungary.

14) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation", The 24th International Free Electron Laser Conference and the 9th FEL Users Workshop 9th to 13th September 2002, Argonne Illinois, USA.

15) Asher Yahalom & Gad Pinhasi "Simulating Fluid Dynamics using a Numerical Variational Principle" *MMT* September 30 - October 4, *2002,* Ariel, Israel

16) A. Yahalom and R. Englman “Phase Angles in a Molecular and a Wider Context" **Invited Lecture** THOECHEM October 9-10, 2002, Jerusalem, Israel.

17) Asher Yahalom & Gad Pinhasi “Simulating Fluid Dynamics using a Variational Principle“ 41st AIAA Aerospace Sciences Meeting and Exhibit 6-9 January 2003 Reno, Nevada, USA.

18) Y. Pinhasi, A. Yahalom, O. Harpaz & G. Vilner, “Spectral Characteristics of Gaseous Media and Their Effects on Propagation of Ultra-Wideband Millimeter Wave Radiation” Second Israeli-Russian Bi-National Workshop, National Academy of Sciences, Jerusalem (2003).

19) A. Yahalom & G.A. Pinhasi, “Hexahedral Meshing Analysis for Complex Geometry” Second Israeli-Russian Bi-National Workshop, National Academy of Sciences, Jerusalem (2003).

20) A. Yahalom “FEL Technology & Applications” Second Israeli-Russian Bi-National Workshop, FEL Laboratory, Ariel (2003).

21) Yosef Pinhasi, Yuri Lurie & Asher Yahalom “Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation” 25th International Free-Electron Laser Conference and the 10th FEL Users Workshop 8 - 12 September 2003, Tsukuba, Ibaraki, Japan.

22) A. Gover, A. Faingersh, A. Eliran, M. Volshonok, H. Kleinman, B. Kapilevich, Y. Lesser, Z. Seidov, M. Kanter, A. Zinigrad, M. Einat, Y. Lurie, A. Abramovich, A. Yahalom, Y. Pinhasi, E. Weisman & J. Shiloh “Radiation Measurements in the New Tandem Accelerator FEL” 25th International Free-Electron Laser Conference and the 10th FEL Users Workshop 8 - 12 September 2003, Tsukuba, Ibaraki, Japan.

23) Yosef Pinhasi, Yuri Lurie & Asher Yahalom “Space-frequency model of ultra-wide-band interactions in millimeter wave masers” Nato Advance Research Workshop on Quasi-Optical Control of Intense Microwave Transmission 17-20 February 2004, Nizhny Novgorod, Russia.

24) Asher Yahalom & Yosef Pinhasi “Control of intense millimeter wave propagation by tailoring the dispersive properties of the medium” NATO Advance Research Workshop on Quasi-Optical Control of Intense Microwave Transmission 17-20 February 2004, Nizhny Novgorod, Russia.

25) A. Gover, A. Faingersh, A. Eliran, M. Volshonok, H. Kleinman, B. Kapilevich, Y. Lasser, Z. Seidov, M. Kanter, A. Zinigrad, M. Einat, Y. Lurie, A. Abramovich, A. Yahalom, Y. Pinhasi “Radiation Measurements in the New Tandem Accelerator FEL” Nato Advance Research Workshop on Quasi-Optical Control of Intense Microwave Transmission 17-20 February 2004, Nizhny Novgorod, Russia.

26) Asher Yahalom & Robert Englman “A "Square-root" Method in Dissipative Quantum Dynamics” 29th Conference of the Middle European Cooperation in Statistical Physics 28 March - 1 April 2004, Bratislava, Slovakia.

27) Yosef Pinhasi & Asher Yahalom "Spectral Characteristics of Gaseous Media and Their Effects on Propagation of Ultra-Wideband Radiation in the Millimeter Wavelengths" 3rd International Conference on Broadband Dielectric Spectroscopy and its Applications, 23-26August 2004, Delft University of Technology, The Netherlands.

28) Asher Yahalom & Yosef Pinhasi "Control of Wave Propagation in a Dielectric Medium by Tailoring its Dispersive Properties" 3rd International Conference on Broadband Dielectric Spectroscopy and its Applications, 23-26August 2004, Delft University of Technology, The Netherlands.

29) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Distributed Gain Media and Free-Electron Lasers in the Absence of Feedback" 26th International Free-Electron Laser Conference 29 August -3 September 2004, Trieste, Italy.

30) Z. Seidov, Y. Pinhasi & A. Yahalom "ABCD Matrix Method: A Case Study" 26th International Free-Electron Laser Conference 29 August -3 September 2004, Trieste, Italy.

31) Z. Seidov, Y. Pinhasi & A. Yahalom "Spot-to-Beam Procedure" 26th International Free-Electron Laser Conference 29 August -3 September 2004, Trieste, Italy.

32) A. Gover, A. Eliran, Y. Socol, , M. Volshonok, Y. Pinhasi, B. Kapilevich, A. Yahalom, Y. Lurie, M. Kanter & M. Einat "Study of Coherence Limits and Chirp Control in Long Pulse FEL Oscillator" 26th International Free-Electron Laser Conference 29 August -3 September 2004, Trieste, Italy.

33) Y. Lurie, E. Dyunin, Z. Seidov, A. Yahalom, Y. Pinhasi & A. Gover "Superradiance and Stimulated Superradiance at Zero-Slippage Conditions" 26th International Free-Electron Laser Conference 29 August -3 September 2004, Trieste, Italy.

34) Asher Yahalom & Yosef Pinhasi "Tailoring Materials for the control of Millimeter Wave Propagation" Third International Conference on Mathematical Modeling of Metal Technologies (MMT 2004), September 6-10, 2004, Ariel, Israel.

35) Asher Yahalom & Yosef Pinhasi "Analysis of Linear System Response to Wide Band Signals with Applications to Filters" 11th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2004), December 13-15, 2004, Tel-Aviv, Israel.

36) A. Yahalom, G.A. Pinhasi and M. Kopylenko "A Numerical Model Based on Variational Principle for Airfoil and Wing Aerodynamics" 43rd AIAA Aerospace Sciences Meeting and Exhibit, January 10-13, 2005, Reno, Nevada, USA.

37) A Yahalom & R Englman "Energy Density in a Dissipative Dielectric Derived from a Lagrangian" Modelling, Simulation and Design of Dielectrics 6 - 8 April 2005, Homerton College, Cambridge, UK.

38) Y Pinhasi & A Yahalom "Space-frequency Study of the Propagation of Ultra Short Radiation Pulses in Dielectric Media" Modelling, Simulation and Design of Dielectrics 6 - 8 April 2005, Homerton College, Cambridge, UK.

39) Asher Yahalom & Yosef Pinhasi "Optimization of the Composition of Materials for Pulse Shaping", the Israeli – Russian Bi-National Workshop, 19-23 June (2005).

40) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Radiation propagation in slab dielectric media", the Israeli – Russian Bi-National Workshop, 19-23 June (2005).

41) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Free-Electron Lasers in the Absence of Feedback: Beyond the High Gain Approximation", 27th International Free-Electron Laser Conference 21-26 August 2005, Stanford, California, USA.

42) Asher Yahalom, Yosef Pinhasi & Yuri Lurie "Variational Approach for Coupled Backward and Forward Wave Excitation in Free-Electron Lasers" 27th International Free-Electron Laser Conference 21-26 August 2005, Stanford, California, USA.

43) A. Yahalom, Y. Pinhasi, Y. Lurie, A. Eliran, & A. Gover "Statistical Analysis of Spontaneous Radiation in the Israeli EA-FEL as a Tool for System Characterization" 27th International Free-Electron Laser Conference 21-26 August 2005, Stanford, California, USA.

44) Y. Socol, A. Faingarsh, S. Peleg, M. Volshonok, A. Gover, M. Einat, M. Kanter, B. Kapilevich, B. Litvak, Y. Lurie, Y. Pinhasi & A. Yahalom "The Israeli EA-FEL Upgrade Towards Long Pulse Operation for Ultra-High Resolution Single Pulse Coherent Spectroscopy" 27th International Free-Electron Laser Conference 21-26 August 2005, Stanford, California, USA.

45) D. Ophir, A. Yahalom, G. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" International Conference on Adaptive Modeling and Simulation (ADMOS 2005), 8-10 September 2005, Barcelona, Spain.

46) D. Ophir, A. Yahalom, G. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" AIAA Conference 2006, Reno, USA.

47) A. Yahalom, G. Pinhasi, M. Kopylenko and D. Ophir "FLUIDEX as a Tool for Aerodynamics Education" AIAA Conference 2006, Reno, USA.

48) D. Ophir, A. Yahalom and M. Kopylenko "Substituting the Relaxation by Variation in a Multi-Grid Cycling Scheme" WCCM-VII ,World Congress on Computational Mechanics, Century Plaza Hotel, Los Angeles, California, USA, July 16-22, 2006.

49) Alon Faingersh, Jeremy Dadoun, Khona Garb, Avraham Gover, Yehoshua Socol , Moshe Einat, Boris Kapilevich, Boris Litvak, Yosef Pinhasi, Asher Yahalom, Grigoriy Denisov & M. Y. Shmelyov "New Resonator for the Israeli FEL", FEL2006, Berlin, Germany.

50) Yehoshua Socol, Egor Dyunin, Avraham Gover, Mark Volshonok, Moshe Einat, Yuri Lurie, Yosef Pinhasi & Asher Yahalom "Present Status of the Israeli FEL: Increasing FEL Power by Electron Beam Energy Boosting", FEL2006, Berlin, Germany.

51) Yosef Pinhasi, Yuri Lurie, Asher Yahalom "Space-Frequency Model of Ultra Wide-Band Interactions in Free-Electron Lasers" , FEL2006, Berlin, Germany.

52) Robert Englman and Asher Yahalom "Vibronic Reduction Factors in $E \otimes (\beta_1 + \beta_2)$ and their Berry's Phase Manifestations" International Symposium on the Jahn-Teller Effects: Novel Aspects in Orbital Physics and Vibronic Dynamics of Molecules and Crystals 2006, ICTP, Trieste, Italy.

53) Asher Yahalom and Robert Englman "Environment-effect on the Berry phase of a driven $G_{\frac{3}{2}} \otimes \varepsilon(t)$ system in a magnetic field by the square root method" International Symposium on the Jahn-Teller Effects: Novel Aspects in Orbital Physics and Vibronic Dynamics of Molecules and Crystals 2006, ICTP, Trieste, Italy.

54) A. Yahalom "CFD Methods Derived from Simplified Variational Principles" AIAA Conference 2007, Reno, USA.

55) Asher Yahalom "Using Magnetic Fields to Optimize Material Flow - a Variational Approach to Magnetohydrodynamics", Israeli – Russian Bi-National Workshop, 25-28 June (2007).

56) Yosef Pinhasi, Yehoshua Socol, Asher Yahalom, Boris Kapilevich, Dani Hardon, Boris Litvak, Ben Paz & Gilad Kidron "Frequency domain characterization of dielectric materials in the Terahertz spectral range", Israeli – Russian Bi-National Workshop, 25-28 June (2007).

57) Boris Kapilevich, Moshe Einat, Michael Kanter, Boris Litvak, Asher Yahalom, Avraham Gover "Millimeter Waves Sensing Behind Walls - Feasibility Study with FEL Radiation" FEL2007, Budker INP, Novosibirsk, Russia.

58) Asher Yahalom, Yosef Pinhasi & Sergey Petnev "Propagation of Ultra Wide-Band Signals in Lossy Dispersive Media" 1st International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS 2008), Tel-Aviv, Israel, May 13th - 14th, 2008.

59) Asher Yahalom, Gad Pinhasi, I. Shtainbach and A. Ullmann "CFD Methods derived from Simplified Variational Principles" 8th. World Congress on Computational Mechanics (WCCM8) and the 5th. European Congress on

Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Lido Island in Venice (Italy), 30 June - 4 July 2008.

60) Asher Yahalom "A Finite Element Approach Derived from the Simplified Variational Principle" 9th ASME Engineering Systems Design and Analysis Conference (ESDA 2008) Faculty of Mechanical Engineering, Technion Haifa, Israel, July 7-9, 2008.

61) Asher Yahalom "Simplified Variational Principles for Stationary Barotropic Fluid Dynamics" Fifth International Conference on Mathematical Modeling of Metal Technologies (MMT 2008), Ariel Israel, September 8 - 12, 2008.

62) B. Kapilevich, Y. Pinhasi, A. Yahalom & B. Litvak "THz Characterization of Lossy Materials Using Multi-Layers Measuring Cell" 3rd International Conference on Infrared, Millimeter, and Terahertz Waves, California Institute of Technology, Pasadena, California USA, September 15 - 19, 2008.

63) Asher Yahalom, "Simplified Variational Principles for Barotropic Magnetohydrodynamics" Progress In Electromagnetics Research Symposium PIERS, March 23–27, 2009, Beijing, China.

64) Asher Yahalom "Simplified Variational Principles for Non-Stationary Barotropic Fluid Dynamics with Non Trivial Topologies" Eighth Israeli-Russian Bi-National Workshop 2009 "The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials" (28.6 – 3.7 2009).

65) H. S. Marks, M. Volshonok, E. Dyunin, A. Gover, Y. Lasser, R. Shershevski and A. Yahalom "Improvement of a Wiggler By Single Axis Magnetic Measurement, Virtual Synthesis and Relocation of Magnets" FEL2009 conference, Liverpool, United Kingdom.

66) Asher Yahalom "Aharonov - Bohm Effects in Barotropic Magnetohydrodynamics" 50 Years of the Aharonov-Bohm Effect, Tel-Aviv University, Tel-Aviv, Israel. (10.10.09-14.10.09).

67) Asher Yahalom, Yosef Pinhasi, Elhanan Shifman & Seregey Petnev "Transmission through Multiple Layers in UWB and Narrow Band Communications" IEEE COMCAS 2009, Tel-Aviv, Israel.

68) A. Yahalom, Y. Pinhasi, E. Shifman and S. Petnev "Transmission through Single and Multiple Layers in the 3-10 GHz Band and the Implications for Communications of Frequency Varying Material Dielectric Constants" CSCC 2010, Corfu, Greece.

69) Y. Pinhasi, A. Yahalom, G. A. Pinhasi and M. Lotock "Atmospheric Effects in Ultra Wideband Wireless Communications in the Extremely High Frequency (EHF) Band" CSCC 2010, Corfu, Greece.

70) A. Yahalom "Barotropic Magnetohydrodynamics as a Four Function Field Theory with Non-Trivial Topology" **Invited lecture** MMT 2010, Ariel, Israel.

71) Alon Eliran, Naftaly Goldshleger, Eyal Ben Dor and Asher Yahalom "Millimeter Waves; a Novel and Promising Remote Sensing Tool for Soil Sub-Surface Mapping: First Steps" AGRI-SENSING 2011, International Symposium on Sensing in Agriculture In Memory of Dahlia Greidinger, 21-24 February, 2011, Technion, Haifa, Israel.

72) Asher Yahalom "Using Fluid Variational Variables to Obtain New Analytic Solutions" the Tenth Israeli-Russian Bi-National Workshop 2011 "The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials", June 20-23, Jerusalem, Israel.

73) Asher Yahalom "A New Diffeomorphism Symmetry Group of Magnetohydrodynamics" IX. International Workshop "Lie Theory and its Applications in Physics", 20 - 26 June 2011, Varna, Bulgaria.

74) Moshe Einat and Asher Yahalom "The magnetic dipole moment of a cellular phone" X Symposium of Magnetic Measurements, 17-19 October 2011, Warsaw, Poland.

75) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor and Menachem Agassi, "First Results from a Millimeter-Wave Soil Moisture-Content Measurement" the 3rd International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS2011), 7-9 November, Hilton Tel-Aviv, Israel.

76) Konstantin Komoshvili, Jacob Levitan, Stela Aronov, Asher Yahalom, Boris Kapilevich, "Millimeter Waves Non-Thermal Effect on Human Lung Cancer Cells" the 3rd International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS2011), 7-9 November, Hilton Tel-Aviv, Israel.

77) Asher Yahalom "Electrodynamic Fields and Flow Fields Combined Magnetohydrodynamics, Topology and Group Theory" in "Exploring the Full Range of Classical Electrodynamics: from Applied Physics to General Relativity" 2nd GIF Workshop, February 19-23, 2012. Jerusalem College of Technology (JCT), Jerusalem, Israel.

78) Y. Pinhasi, A. Yahalom & G. A. Pinhasi "Ultra Wideband Wireless Satellite Communications in the 94 GHz Band" 2012 IEEE Aerospace Conference, 3-10 March 2012, Big Sky, Montana, USA.

79) Robert Englman and Asher Yahalom "Two Contra-Consensual Remarks About Geometric Phases: Strictly, There is no Vacuum-Induced Berry Phase; The Aharonov –Anandan Phase is Less Ubiquitous than Commonly Perceived" Nonequilibrium Transport in Low-Dimensional Systems, April 29th to May 3rd, 2012, Kfar Blum, Israel.

80) Eliran Alon, Goldshleger Naftaly, Yahalom Asher, Ben-Dor Eyal, Agassi Menachem "Quantitative Results from a Novel Approach to Remote Sensing of

Soil Moisture Content in a Micro Profile Section Under Various Precipitation Energies" 4th International Congress EUROSOIL 2012 Soil Science for the Benefit of Mankind and Environment, 02/07/2012 - 06/07/2012, Bari, Italy.

81) Asher Yahalom "Using Fluid Variational Variables to Obtain New Analytic Solutions with Nonzero Helicity" Topological Fluid Dynamics (IUTAM Symposium), 23-27 July 2012, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK.

82) Asher Yahalom "Variational principles of MHD with non trivial topology" Tangled Magnetic Fields in Astro- and Plasma Physics Oct 15 - Oct 19, 2012, International Centre for Mathematical Sciences, 15 South College Street, Edinburgh, UK.

83) Asher Yahalom "Log-Analytic Uncertainty Relation" Quantized Flux in Tightly Knotted and Linked Systems, 3-7 December 2012, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK.

84) Michael Byalsky & Asher Yahalom "On the Wind Energy Use and its Relevance in the Ariel Area" the international conference “Actual Problems and Perspectives of Innovative Agroeconomics” (“Актуальные проблемы и перспективы инновационной агроэкономики”), Saratov, Russia, the Saratov State Agrarian University, 12th Dec., 2012. (Section: The Resource Saving Technologies in the Effective Operation in Agroeconomics.)

85) Asher Yahalom “Magnetic Helicity and the Aharonov-Bohm Constraint for Fusion” the Twelfth Russian-Israeli Bi-National Workshop 2013 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials” July 8-10, 2013, Jerusalem-Ariel, Israel.

86) Asher Yahalom, “Variational Principles for Topological Barotropic Fluid Dynamics” 9th WSEAS International Conference on Applied and Theoretical Mechanics (MECHANICS '13), Dubrovnik, Croatia, June 25-27, 2013. **(Plenary Lecture)**

87) Asher Yahalom & Robert Englman “Log-Analytic Uncertainty Relation” COST (European Cooperation in Science and Technology) meeting on Fundamental Problems in Quantum Physics, March 23-27, 2014, David Lopatie Conference Centre of the Weizmann Institute of Science, Rehovot, Israel. **(Invited Lecture)**

88) Robert Englman & Asher Yahalom “Density Matrix through Time Averaging: Decoherence and Thermalization, Adiabatic Protection” COST (European Cooperation in Science and Technology) meeting on Fundamental Problems in Quantum Physics, March 23-27, 2014, David Lopatie Conference Centre of the Weizmann Institute of Science, Rehovot, Israel.

89) Michael Suleymanov, Lawrence Horwitz & Asher Yahalom “Covariant Relativistic Space-Time String” COST (European Cooperation in Science and Technology) meeting on Fundamental Problems in Quantum Physics, March 23-

27, 2014, David Lopatie Conference Centre of the Weizmann Institute of Science, Rehovot, Israel.

90) Asher Yahalom "The Geometrical Meaning of Time Some Cosmological Implications" IC-MSQUARE August 28-31 2014, Madrid, Spain.

91) Nezah Balal, Eyal Magori & Asher Yahalom "Design of a Permanent Magnet Wiggler for a THz Free Electron Laser" XI Symposium of Magnetic Measurements (SPM), Częstochowa - Czarny Las, Poland, 20th-22nd October 2014.

92) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor and Menachem Agassi "Measurement of soil moisture content under physical crust by millimeter-wave backscattering" 2014 IEEE, 28th Convention of Electrical and Electronics Engineers in Israel, December 3-5, 2014, Hilton Queen of Sheba, Eilat, Israel.

93) M. Einat & A. Yahalom "Induced static magnetic field by a cellular phone" 2014 IEEE, 28th Convention of Electrical and Electronics Engineers in Israel, December 3-5, 2014, Hilton Queen of Sheba, Eilat, Israel.

94) A. Yahalom "The Geometrical Meaning of Time in the Presence of Matter" the 4th International Conference on Mathematical Modeling in Physical Sciences, IC-MSQUARE 2015, June 5-8, 2015, Mykonos, Greece.

95) A. Yahalom "Topological Constants of Motion in Barotropic Fluid dynamics and Magnetohydrodynamics" XXIIIth International Conference on Integrable Systems and Quantum Symmetries, 23-27 June 2015, Czech Technical University in Prague, Břehová 7, Prague 1, Česká Republika,

96) A. Yahalom "The Geometrical Meaning of Time in the Presence of Matter Some Cosmological Implications" GR100 in Rio, July 28, 2015, Rio de Janeiro, Brazil.

97) Alon Kuperman, Asher Yahalom & Michael Byalsky "Assessment of Wind Speed Statistics in Samaria Region for Wind Turbine Energy Yield Estimation" 14th World Wind Energy Conference & Exhibition (WWEC 2015), 26-28 October, Jerusalem, Israel.

98) Asher Yahalom "Variational Principles for non-Barotropic Magnetohydrodynamics and Local Topological Conservation Laws" IUTAM Symposium: Helicity, Structures and Singularity in Fluid and Plasma Dynamics, 11-15 April 2016, Palazzo Franchetti, Venice, Italy. (Invited)

99) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" EMN Meeting on Terahertz, May 15, 2016, San Sebastian, Spain. (Invited)

100) Doron Greenberg, Michael Byalsky, Asher Yahalom "On the Wind Turbines Assessment by Real Options Technique in Israel" The Eighth International Conference on Advances in Databases, Knowledge and Data Applications, DBKDA 2016, June 26 - 30, 2016 - Lisbon, Portugal.

101) Asher Yahalom "Variational Principles for Topological Barotropic Fluid Dynamics" COME 2016 The International Conference on Continuum Mechanics, Corfu Island, Greece, July 14-17, 2016. (**Plenary Lecture**)

102) Asher Yahalom "Relativistic Force Generator: Coil-Coil & Magnet-Coil Cases" The Ninth International Conference on Materials Technologies and Modeling MMT 2016, Ariel, Israel.

103) Asher Yahalom "A Finite Element Approach Derived from the Simplified Variational Principle" Fluid Dynamics & Aerodynamics, August 15-16, 2016, London, UK.

104) A. Yahalom "Variational Principles for Non-Barotropic Magnetohydrodynamics a Tool for Evaluation of Plasma Processes" XV Israeli-Russian Bi-National Workshop “The optimization of composition, structure and properties of metals, oxides, composites, nano - and amorphous materials”, 26 - 30 September 2016, Yekaterinburg, Russian Federation.

105) A. Yahalom "Relativistic Engine Based on a Permanent Magnet" XII Symposium of Magnetic Measurements & Modeling SMMM’2016, Siewierz, Poland, 17th – 19t^{h} October 2016.

106) Asher Yahalom, Vitaly Prikhodko, Yair Dahan and Moshe Averbukh "Experimental Verification of Internal Resistance and Capacitance of CPQ2300S Li-Ion Ultracapacitors" 2016 ICSEE International Conference on the Science of Electrical Engineering, November 16 – 18, 2016, Hilton Queen of Sheba, Eilat, Israel.

107) Michael Sulymanov, Asher Yahalom and Yosef Pinhasi "Real Time Fault Location in High Voltage Network Power Lines" 2016 ICSEE International Conference on the Science of Electrical Engineering, November 16 – 18, 2016, Hilton Queen of Sheba, Eilat, Israel.

108) Asher Yahalom "Variational Principles and Topological Constants of Motion for Barotropic and non Barotropic Magnetohydrodynamics" 12th International Conference on Fluid Mechanics (FLUIDS '16), Bern, Switzerland 18.12.2016. (**Plenary Lecture**)

109) Asher Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" Annual Spring Meeting of the American Physical Society Ohio-Region Section May 5-6, 2017. Eastern Michigan University, Ypsilanti, MI, USA.

110) Asher Yahalom "On the Difference between Time and Space" Recent Developments in General Relativity, In Memory of Joseph Katz (1930-2016), May

21-23, 2017, Belgium House, Edmond J. Safra Campus, Hebrew University, Jerusalem, Israel.

111) Sergei Kolesnik, Moshe Sitbon, Asher Yahalom & Alon Kuperman "Assessment of Wind Resource Statistics in Samaria Region" The 16th International Scientific Conference on Engineering for Rural Development, 24.-26.05.2017. Jelgava, Latvia.

112) Asher Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" CHAOS 2017, 10th Chaotic Modeling and Simulation International Conference 30 May -2 June 2017, Barcelona, Spain.

113) Asher Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" X. International Symposium: Quantum Theory and Symmetries, Varna, Bulgaria, 19-25 June 2017.

114) Asher Yahalom "Preliminary Energy Considerations in a Relativistic Engine" the Israeli-Russian Bi-National Workshop "The optimization of composition, structure and properties of metals, oxides, composites, nano - and amorphous materials", 28 - 31 August 2017, Ariel, Israel.

115) D. Greenberg, M. Byalsky & A. Yahalom "Valuation of wind energy turbines using real option analysis" 7th International conference on Energy and Sustainability, 20 - 22 September 2017, Seville, Spain.

116) Asher Yahalom "Variational Principles for Topological non-Barotropic Fluid Dynamics" 2nd International Conference on Fluid Dynamics and Aerodynamics, October 19-20, 2017, Rome, Italy.

117) Asher Yahalom "Variational Principles for Topological non-Barotropic Fluid Dynamics" 5th Annual International Conference on Mechanics and Mechatronics (ICMM2017), December 15-17, 2017, Xiamen, China. (**Keynote lecture**)

118) Asher Yahalom "Variational Principles for Non-Barotropic Fluid Dynamics" 9th European Conference on Applied Mathematics and Informatics (AMATHI '18) Cambridge, UK, February 16-18, 2018. (**Plenary lecture**)

119) Asher Yahalom "Short Circuit Fault Detection in Two Wire Transmission Line" IEEE - HIT 5th Conference on Electromagnetic Compatibility, EMC-2018, Holon, Israel May 10, 2018.

120) Asher Yahalom "Momentum Conservation in a Relativistic Engine" International Association for Relativistic Dynamics (IARD), Mérida, Yucatán, Mexico. 4 - 7 June 2018. (**Opening lecture)**

121) Asher Yahalom, Meir Lewkowicz, Jacob Levitan, Gil Elgressy, Lawrence Horwitz & Yossi Ben-Zion "Uncertainty Relation for Chaos" 11th Chaotic

Modeling and Simulation International Conference (CHAOS2018), 5-8 June 2018, "Sapienza" University of Rome, Italy.

122) Asher Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" 15th European Vacuum Conference (EVC-15), 17-22 June 2018, Geneva, Switzerland.

123) Asher Yahalom "Metage Symmetry Group of Non Barotropic Magnetohydrodynamics and the Conservation of Cross Helicity" The 32nd International Colloquium on Group Theoretical Methods in Physics (Group32), Czech Technical University, Prague, Czech Republic, 9-13 July 2018.

124) A. Yahalom "The Fluid Dynamics of Spin - a Fisher Information Perspective" Seventeenth Israeli - Russian Bi-National Workshop 2018. The optimization of composition, structure and properties of metals, oxides, composites, nano, and amorphous materials.

125) M. Nabwani, M. Suleymanov, Y. Pinhasi & A. Yahalom "Retardation in the Service of Real Time Fault Detection and the Difference Between Distributed and Lumped Fault Models" Material Technologies and Modeling the Tenth International Conference, Ariel University, Ariel, Israel, August 20 – 24, 2018.

126) A. Yahalom "Retardation Effects in Electromagnetism and Gravitation" Material Technologies and Modeling the Tenth International Conference, Ariel University, Ariel, Israel, August 20 – 24, 2018.

127) A. Yahalom "Metric Signature and Implications on the Early Universe and Gravitational Wave Phenomena" Inflation, Alternatives and Gravitational Waves, Ariel University, Ariel, Israel, September 3-6, 2018.

128) D. Greenberg, M. Byalsky & A. Yahalom "Valuation of wind energy turbines using real option analysis with endogenous time to exercise" 10th International Conference on Sustainable Development and Planning, 4-6 September 2018, Siena, Italy.

129) I. Chaimov, E. Dyunin & A. Yahalom "Correcting for FEL magnetic field distortions. The method of bilinear shimming" XIII Symposium of Magnetic Measurements & Modelling Cracow – Wieliczka, Poland, 8th - 10th October 2018.

130) S. Rajput & A. Yahalom "Preliminary Magnetic Energy Considerations in a Relativistic Engine: Mutual Inductance vs. Kinetic Terms" the 2018 ICSEE International Conference on the Science of Electrical Engineering, Eilat, Israel, December 12-14, 2018.

131) Asher Yahalom, Yakov Abitbul and Moshe Averbukh "Preliminary Dynamic Parameters Comparison of Asymmetric (Ultimo CPQ 2300S, JSR Co.) and Double-Layer (BCAP3400, Maxwell Co.) Ultracapacitors " the 2018 ICSEE International Conference on the Science of Electrical Engineering, Eilat, Israel, December 12-14, 2018.

132) Asher Yahalom, Tatiana Minav and Moshe Averbukh “Modified Approach for Global MPP Finding under Partial Shading Based on Photo-Current Estimations of Each PV panel” the 2018 ICSEE International Conference on the Science of Electrical Engineering, Eilat, Israel, December 12-14, 2018.

133) Shailendra Rajput, Moshe Averbukh and Asher Yahalom "J8012-A: Electrostatic energy generator for portable electronic devices" 2019 International Conference on Smart Grid and Green Energy (SGGE 2019), January 23-25, 2019. National University of Singapore, Singapore. (**Best presentation award**).

134) Asher Yahalom "Relativistic Force Generator: Coil-Coil & Magnet-Coil Cases" IEEE- Israel society of Electromagnetic Compatibility (EMC) Conference, May 23, 2019. Sami Shamoon College of Engineering (SCE), Ashdod, Israel.

135) I. Chaimov, E. Dyunin & A. Yahalom “Correcting for FEL magnetic field distortions. The method of bilinear shimming” EMN Prague Meeting on Terahertz, June 10 - 14, 2019, Prague, Czech Republic.

136) Asher Yahalom "The Fluid Dynamics of Spin a Fisher Information Perspective" 12th CHAOS Conference (CHAOS2019), 18-21 June 2019, Chania, Crete, Greece.

137) Asher Yahalom "Label and Metage Symmetries and Stability of Fusion Plasmas " International Vacuum Conference IVC-21, ICSS-17 (17th International Conference on Surface Science), the ICN+T 2019 (The 2019 International Conference on Nanoscience + Technology), and Nano Forum 2019. 1-5 July 2019, Malmo, Sweden.

138) Asher Yahalom "Relativistic Force Generator: Coil-Coil & Magnet-Coil Cases" The 6th International Forum on Electrical Engineering and Automation (IFEEA 2019) July 5 - 7, 2019 Qingdao, China. **(Keynote Speech)**

139) Asher Yahalom "New Topological Constants in MHD" The XXVIth International Conference on Integrable Systems and Quantum symmetries (ISQS-26), Prague, Czech Republic, July 8-12, 2019.

140) Asher Yahalom "The Use of Magnetic Materials in a Relativistic Engine: Momentum and Energy Aspects" International Congress on Advanced Materials Sciences and Engineering (AMSE-Japan), July 22-24, 2019 , Osaka, Japan.

141) I. Chaimov, E. Dyunin, and A. Yahalom "Correcting for FEL Magnetic Field Distortions the Method of Bilinear Shimming" Workshop on Advanced Accelerators and Advanced Radiation Sources, July 29, 2019, Ariel, Israel.

142) Michal Wagman, Lawrence P. Horwitz, and Asher Yahalom "A new approach to the dark matter problem" IARD 2020, The 12th Biennial Conference on Classical and Quantum Relativistic Dynamics of Particles and Fields, 1 – 4 June 2020, Virtual Meeting Online.

143) Shailendra Rajput and Asher Yahalom "Energy Conservation in a Relativistic Engine" IARD 2020, The 12th Biennial Conference on Classical and Quantum Relativistic Dynamics of Particles and Fields, 1 – 4 June 2020, Virtual Meeting Online.

144) Asher Yahalom and Natalia Puzanov "Time Dependent Stabilization of a Hamiltonian System" 13th Chaotic Modeling and Simulation International Conference (CHAOS 2020) Turned Virtual. 9-12 June 2020.

145) Asher Yahalom "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" International Conference on Mathematical Modelling in Physical Sciences, September 7-10, 2020, Tinos Island, Greece. (Turned Virtual)

146) Asher Yahalom "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" DPP20 Meeting of the American Physical Society 12.11.2020.

147) Asher Yahalom "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" 2020 US-Japan Virtual Website Workshop on Compact Tori, hosted by Gunma University, Japan. Dec. 1st , 2020 – Jan. 31st, 2021.

148) A. Yahalom "Effects of Higher Order Retarded Gravity on Galactic Rotation Curves" 1st Electronic Conference on the Universe, 22-28 February 2021, virtual.

149) Rajput Shailendra & Yahalom Asher "Energy Transformations in a Relativistic Engine of the Third Order: How to Avoid Radiation Losses" The 19th Israeli-Russian bi-national Workshop. 2020. The Optimization of Composition, Structure and Properties of Metals, Oxides, Composites, Nano- and Amorphous Materials, Yekaterinburg, 05–08 октября 2020 года

150) S. Rajput, A. Barbora, K. Komoshvili, J. Levitan, A. Yahalom and S. Liberman-Aronov, "Scrutinizing Effects of 75 GHz MMW Irradiation on Biological Functions of Yeast," 2020 IEEE MTT-S International Microwave Biomedical Conference (IMBioC), Toulouse, France, 2020. Virtual conference - Dec 14th - 17th, 2020.

151) Ofir Flom, Asher Yahalom, Haggai Zilberberg, Lawrence Horwitz & Jacob Levitan, "Tunneling as a Source for Quantum Chaos" Entropy 2021: The Scientific Tool of the 21st Century, 5-7 May 2021, Porto, Portugal (Virtual). **Best Oral Presentation Award.**

152) Asher Yahalom "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Restriction of Chaos by Topological Conservation Laws" 14th CHAOS2021 International Conference, 8 - 11 June 2021, Athens, Greece (Virtual).

153) Asher Yahalom "Label Symmetry Subgroups and the Conservation of Generalized Cross Helicities of Non-Barotropic MHD" Symmetry 2021 - The 3rd International Conference on Symmetry, 8–13 August 2021, virtual.

154) M. Nabwani, Y. Pinhasi & A. Yahalom "Retardation in Service of Real Time Fault Detection" DS - Topic 7: Grids, Smart Grids, AC & DC, paper #250, 23rd European Conference on Power Electronics and Applications, EPE'21 ECCE Europe, September 6-10, 2021.

155) M. Nabwani, Y. Pinhasi & A. Yahalom "Fault detection in High Voltage Distribution Lines" Electricity & Energy 2021, the 21st International Annual Convention of SEEEI, November 9-12, 2021, | Eilat, Israel.

156) A. Yahalom "Electric Relativistic Engine" Electricity & Energy 2021, the 21st International Annual Convention of SEEEI, November 9-12, 2021, | Eilat, Israel.

157) Hong Qin, Yichen Fu, Alexander S Glasser & Asher Yahalom "Spontaneous and explicit parity-time-symmetry breaking in drift wave instabilities of magnetized plasmas" 63rd Annual Meeting of the APS Division of Plasma Physics, November 8–12, 2021; Pittsburgh, PA, USA.

158) A. Yahalom "Retardation Effects in Galaxies", General Relativity, Quantum Mechanics, and Everything in Between Celebrating 92 Springs of Professor Lawrence Paul Horwitz, April 25-26, 2022, Ariel University, Ariel, Israel.

159) A. Yahalom "Tully–Fisher Relations and Retardation Theory for Galaxies", IARD 2022, The 13th Biennial Conference on Classical and Quantum Relativistic Dynamics of Particles and Fields. 6 - 9 June 2022, Czech Technical University in Prague.

160) A. Yahalom "A Fisher Information Perspective of Pauli's Electron" 15th CHAOS Conference, CHAOS2022, Tuesday 14 - Friday 17 June 2022, Athens, Greece.

161) A. Yahalom "The Relativistic Engine" Global Experts Meet on Condensed Matter Physics GEMCMP22, Rome, Italy June 16-18, 2022. **Keynote Lecture**

162) A. Yahalom "Retarded Gravity and the Dark Matter Problem" 5th International Conference on Astronomy, Astrophysics and Space Science 27-28 June 2022, Budapest, Hungary. **Keynote Lecture**

163) A. Yahalom "A Three Function Variational Principle for Stationary non-Barotropic Magnetohydrodynamics" 2nd World Conference on Aerospace Engineering, August 18-19, 2022 Webinar.

164) A. Yahalom "Noether Currents for Eulerian Variational Principles in Non-barotropic Magnetohydrodynamics and Topological Conservations Laws"

International School of Mathematics & Workshop Topological Methods in Mathematical Physics, 1-7 September 2022, Erice, Sicily, Italy. **Keynote**

165) A. Yahalom "Weak Gravity, Retardation Theory for Galaxies, Tully–Fisher Relations and the Problem of Precession of the Perihelion for Mercury" Mini Conference on Modified Gravity, 14-19 September 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

166) A. Yahalom "The Weak Field Approximation of General Relativity, Retardation, and the Problem of Precession of the Perihelion for Mercury" International Conference COSMOLOGY ON SMALL SCALES 2022: Dark Energy and the Local Hubble Expansion Problem, September 21–24, 2022, Institute of Mathematics, Czech Academy of Sciences, Zitna 25, Prague, Czech Republic.

167) A. Yahalom "Tully-Fisher Relations and Retardation Theory for Galaxies" BASIC2022 Stella Maris, Long Island, Bahamas, October 19-26, 2022.

168) A. Yahalom "A Nano Relativistic Motor: Preliminary Analysis" 22nd International Annual Convention of SEEEI November 8-11, 2022, Eilat, Israel.

169) A. Yahalom "Tully-Fisher Relations and Retardation Theory for Galaxies" Global Conference on Gravitation, Astrophysics and Cosmology (GCGAC2022), Online, November 10, 2022.

National Conference Presentations

170) R. Englman and A. Yahalom, "The Collapse of Wave Packets", Bulletin of the Israel Phys. Soc. 43, 188 (1997).

171) A. Gover, A. Abramovich, A. L. Eichenbaum, M. Kanter, A. Yahalom, J. Shiloh, I. Schnitzer, A. Levin & Y. Pinhasi "An Israeli Free Electron Laser User Facility - Radiation Source Features and User Applications", Bulletin of the Israel Phys. Soc. 45, 129 (1999).

172) Y. Pinhasi, M. Kronghauz, A. Gover, M. Arbel, M. Tecimer, A. L. Eichenbaum, A. Abramovich, Y. M. Yakover & A. Yahalom "Super-radiance, pulse compression and ultimate conversion efficiency in pre-bunched Free Electron Laser", Bulletin of the Israel Phys. Soc. 45, 210 (1999).

173) A. Yahalom, "Phase Detection and Kramers - Kronig relations in Free Electron Lasers radiation", Israeli FEL convention (1999).

174) A. Yahalom, "The scientific schedule of the Israeli FEL consortium", Israeli FEL convention (1999).

175) S. Efimov, A. Abramovich, M. Canter, A. Gover, J. Sokolowski, Y. Pinhasi, M. Tecimer, A. Yahalom "Multi-Stage Collector for an Energy Retrieval System in the Israeli FEL", The Third Israeli Conference on Plasma Physics and its

Applications, Ben-Gurion University of the Negev, Beer-Sheva, Israel (February 2000).

176) R. Englman and A. Yahalom "Wave Packet Evolution Indicates a Quantum Mechanical Time Arrow", Bulletin of the Israel Phys. Soc. 46, 128 (2000).

177) A. Yahalom and R. Englman and "Continuity Equations in Phase-Modulus Formalism", Bulletin of the Israel Phys. Soc. 46, 123 (2000).

178) S. Efimov, A. Abramovich, D. Bar-Lev, M. Canter, A. Eichenbaum, A. Gover, J. Sokolowski, Y. Pinhasi, M. Tecimer, A. Yahalom "Beam Collection in the Energy Retrieval System of the Israeli FEL", Bulletin of the Israel Phys. Soc. 46, 104 (2000).

179) A. Yahalom "The Schedule of the FEL User Center" FEL Inaugural Symposium (June 2000).

180) A. Yahalom, Y. Pinhasi and Y. Lurie "Variational Principles of Electromagnetic Field Excitation in Wave guides" THE FOURTH ISRAELI CONFERENCE ON PLASMA PHYSICS AND ITS APPLICATIONS, 15 February 2001, Technion-Israel Institute of Technology, Haifa.

181) Y. Pinhasi and A. Yahalom "WIDEBAND WIRELESS COMMUNICATION RADIO LINK IN THE EXTREMELY HIGH FREQUENCY (EHF) BAND" The Israeli Software Radio Consortium Meeting (November 2001).

182) A. Yahalom, Y. Pinhasi and Y. Lurie "Variational Principles of Electromagnetic Fields with Application to Free Electron Lasers" The 47th Meeting of the Israel Physical Society (IPS 2001).

183) A. Yahalom and R. Englman "The Stability of Lorentzian Space-Time" The 47th Meeting of the Israel Physical Society (IPS 2001).

184) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Study of amplified spontaneous emission and super-radiance in free-electron laser operating in the linear and non-linear regimes" The 47th Meeting of the Israel Physical Society (IPS 2001).

185) Yosef Pinhasi and Asher Yahalom "Experimental study of wideband wireless radio link in the EHF band", The management meeting of The Israeli Consortium of Software Radio, Herzlia (September 2, 2002).

186) Yosef Pinhasi, Asher Yahalom, O. Harpaz & G. Vilner "Study of Wideband Wireless Communication Radio Link in the Extremely High Frequency (EHF) Band" Software Radio Conference October 21, 2002, Hertzelia, Israel.

187) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation" The 48th Meeting of the Israel Physical Society (IPS 2002).

188) Yosef Pinhasi and Asher Yahalom "Wide Band Wireless Communication Radio Link in the Extremely High Frequency (EHF) Band" The 48th Meeting of the Israel Physical Society (IPS 2002).

189) Asher Yahalom and Robert Englman "Log-Analyticity Threshold for a Scattered Particle" The 48th Meeting of the Israel Physical Society (IPS 2002).

190) Asher Yahalom and Gad A. Pinhasi "Simulating Fluid Dynamics Using an Eulerian Variational Principle" The 48th Meeting of the Israel Physical Society (IPS 2002).

191) Y. Pinhasi, Y. Lurie, and A. Yahalom "Study of Radiation Spectrum in a Free-Electron Laser Oscillator from Noise to Saturation" The 6th Israeli Conference on Plasma Science and Applications – IPSTA03, February 12, 2003, Holon Academic Institute of Technology, Israel.

192) A. Gover, Y. Pinhasi, A. Yahalom, and A. Zinigrad "Free Electron Laser" Infra-Structure Knowledge Centers Meeting, February 12, 2003, Bet Hatfotzot, Tel-Aviv University, Tel-Aviv, Israel.

193) Yosef Pinhasi and Asher Yahalom "Wireless Short-Range Communications" Meeting of Academic Participants, Azrieli Center, Tel-Aviv, September 4, 2003, Israel.

194) Robert Englman and Asher Yahalom "Vibronic Reduction Factors in Dihedral Symmetry" The 49th Meeting of the Israel Physical Society (IPS 2003).

195) Robert Englman and Asher Yahalom "A Factorization Method to Extremize Non-Equilibrium Densities" The 49th Meeting of the Israel Physical Society (IPS 2003).

196) Y. Pinhasi, A. Yahalom, O. Harpaz, G. Vilner and T. Levi "Transmission of Ultra Short Pulses in the Millimeter Wavelengths" The 49th Meeting of the Israel Physical Society (IPS 2003).

197) A. Gover, A. Eliran, A. Faingersh, H. Kleinman, Y. Socol, M. Volshonok, Y. Yakover, B. Kapilevich, Y. Lesser, Z. Seidov, M. Kanter, A. Zinigrad, M. Einat, Y. Lurie, A. Abramovich, A. Yahalom, Y. Pinhasi, E. Weisman & J. Shiloh and Gad A. Pinhasi "High Current Transport and First Lasing in the Reconfigured Israeli Electrostatic-Accelerator FEL" The 49th Meeting of the Israel Physical Society (IPS 2003).

198) Asher Yahalom and Robert Englman "In a Wave Packet Collapse the Phase of a Non-selected Component Diverges" The 49th Meeting of the Israel Physical Society (IPS 2003).

199) Asher Yahalom and Robert Englman "Log-Analyticity Threshold for a Scattered Particle Revisited" The 49th Meeting of the Israel Physical Society (IPS 2003).

200) A. Gover, A. Eliran, A. Faingersh, H. Kleinman, Y. Socol, M. Volshonok, S. Wolowelski, Y. Yakover, B. Kapilevich, Y. Lesser, Z. Seidov, M. Kanter, A. Zinigrad, M. Einat, Y. Lurie, A. Abramovich, A. Yahalom, Y. Pinhasi, E. Weisman & J. Shiloh "The Israeli Electrostatic-Accelerator Fel – First Operation in A New Configuration" The 7th Israeli Conference on Plasma Science and Applications (IPSTA 2004).

201) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Ultra Wide-Band Interaction in Millimeter Wave Masers at Grazing Incidence" The 7th Israeli Conference on Plasma Science and Applications (IPSTA 2004).

202) Tal Levi, Asher Yahalom and Yosef Pinhasi "Control of Millimeter Wave Propagation by Tailoring the Dispersive Properties of the Medium" The 7th Israeli Conference on Plasma Science and Applications (IPSTA 2004).

203) Yariv Yanay, Avi Goldsmith, Menachem Siman, Robert Englman, Asher Yahalom & Zeev Jaeger "Residual strength of randomly perforated plates" The 50th Meeting of the Israel Physical Society (IPS 2004).

204) Asher Yahalom, Gad A. Pinhasi & Michael Kopylenko "A numerical model based on a variational principle for airfoil and wing aerodynamics" The 50th Meeting of the Israel Physical Society (IPS 2004).

205) Asher Yahalom & Yosef Pinhasi "Control of millimeter wave propagation by tailoring the dispersive properties of the medium" The 50th Meeting of the Israel Physical Society (IPS 2004).

206) Yosef Pinhasi, Asher Yahalom, Yuri Lurie & Gad A. Pinhasi "Backward wave excitation and generation of oscillations in distributed gain media and free-electron lasers in the absence of feedback" The 50th Meeting of the Israel Physical Society (IPS 2004).

207) Yehoshua Socol, Avraham Gover, Alon Eliran, Mark Volshonok, Yosef Pinhasi, Boris Kapilevich, Asher Yahalom, Yuri Lurie, and Moshe Einat "Study of coherence limits and chirp control in long pulse FEL oscillator" The 50th Meeting of the Israel Physical Society (IPS 2004).

208) Zakir Seidov, Yosef Pinhasi & Asher Yahalom "ABCD matrix method: A case study" The 50th Meeting of the Israel Physical Society (IPS 2004).

209) Zakir Seidov, Yosef Pinhasi & Asher Yahalom "Spot-to-beam procedure" The 50th Meeting of the Israel Physical Society (IPS 2004).

210) Asher Yahalom & Robert Englman "A toy-model for Born's propensity rules" The 50th Meeting of the Israel Physical Society (IPS 2004).

211) Asher Yahalom & Robert Englman "A "square root" method for the density matrix in Lindblad processes" The 50th Meeting of the Israel Physical Society (IPS 2004).

212) Y. Socol, A. Gover, A. Eliran, M. Volshonok, Y. Pinhasi, B. Kapilevich, A. Yahalom, Y. Lurie, M. Kanter, M. Einat, & B. Litvak "Study of Coherence Limits and Chirp Control in Long Pulse Fel Oscillator" 8th Israeli conference on plasma science and applications 2005, The College of Judea and Samaria, Ariel, Israel.

213) S. Peleg, H. Kleinmann, Y. Volovelskey, A. Gover, Y. Pinhasi, A. Yahalom, M. Kanter & M. Harpaz "Design and Construction of an Efficient Electron Beam Recovery System (Collector) for FEL" 8th Israeli conference on plasma science and applications 2005, The College of Judea and Samaria, Ariel, Israel.

214) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Space-Frequency Model of Ultra Wide-Band Interactions in Free-Electron Lasers" 8th Israeli conference on plasma science and applications 2005, The College of Judea and Samaria, Ariel, Israel.

215) Yosef Pinhasi, Asher Yahalom, Yuri Lurie, and Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Distributed Gain Media and Free-Electron Lasers in the Absence of Feedback" 8th Israeli conference on plasma science and applications 2005, The College of Judea and Samaria, Ariel, Israel.

216) Yosef Pinhasi, Asher Yahalom, Yuri Lurie, and Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Distributed Gain Media and Free-Electron Lasers in the Absence of Feedback" Electroptics Convention 16.3.05, Ganei-Hatarucha, Tel-Aviv, Israel.

217) A. Yahalom, G.A. Pinhasi and M. Kopylenko "Simulating Fluid Dynamics Using a Variational Principle", ISCM18, Technion. Haifa, Israel (April 7, 2005)

218) Yosef Pinhasi, Asher Yahalom, Sergey Petnev & Oren Harpaz "Indoor Propagation of Ultra Wide Band Signals" The Israeli Consortium for Short Range Communications - Academy Meeting, Technion, Haifa, April 19, 2005.

219) Yosef Pinhasi & Asher Yahalom "Study of Ultra Wide-Band Transmission in the Extremely High Frequency (EHF) Band", The 19th IEEE S-AP/MTT Joint Chapter Symposium, Hertzliya, Israel (May 9, 2005)

220) Asher Yahalom & Yosef Pinhasi "Control of Microwave & Millimeter wave Propagation by Tailoring the Dispersive Properties of the Medium", The 19th IEEE S-AP/MTT Joint Chapter Symposium, Hertzliya, Israel (May 9, 2005)

221) G.A. Pinhasi, A. Yahalom & M. Kopylenko "Simulating Fluid Dynamics Using a Variational Principle", The 30th Israel Conference on Mechanical Engineering, David Inter Continental Hotel, Tel-Aviv, May 29-30, 2005.

222) Yosef Pinhasi, Asher Yahalom, Sergey Petnev & Oren Harpaz "Indoor Radio Wave Propagation Effect on Short-Range Links" IEEE - Communication in

the Personal Domain and the Smart House, Dan Panorama Hotel, Tel-Aviv, June 1-2, 2005.

223) Yosef Pinhasi, Asher Yahalom, Sergey Petnev "Indoor Propagation of Ultra Wide Band Signals - Propagation Through Walls" ISRC - Short Range Consortium Channel Models Conference, September 8, 2005.

224) D. Ophir, A. Yahalom, G. A. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" Eighteenth Israel Symposium on Computational Mechanics (ISCM-19), The Academic College of Tel-Aviv Yafo, October 27, 2005.

225) Yosef Pinhasi, Asher Yahalom, Oren Harpaz, Guy Vilner & Tal Levi "Ultrawide-Band Transmission in the Extremely High Frequency (EHF) Band" Electricity 2005, Eilat, November 16-18, 2005.

226) Dan Ophir, Asher Yahalom, Gad Pinhasi and Michael Kopylenko "A combined variational & multi-grid approach for fluid Simulation" The 51st Meeting of the Israel Physical Society (IPS 2005).

227) Asher Yahalom and Robert Englman "Conductance phase regime changes in Aharonov-Bohm ring quantum dots" The 51st Meeting of the Israel Physical Society (IPS 2005).

228) Yosef Pinhasi, Asher Yahalom and Gad Pinhasi "Ultra short pulse propagation in lossy dielectric media" The 51st Meeting of the Israel Physical Society (IPS 2005).

229) Yosef Pinhasi, Asher Yahalom, Sergey Petnev "Indoor Through Walls Propagation of Ultra Wide Band Signals" ISRC - Short Range Consortium Channel Models Conference, February 9, 2006.

230) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Space-frequency model of ultra wide-band interactions in free-electron lasers" 9th Israeli conference on plasma science and applications 2006, Ein-Gedi, Israel.

231) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Propagation of Ultra-Wide Band Signals for Indoor Short Range Wireless Networks" the Israeli IEEE AP_MTT Symposium, May 8, 2006, Herzliya, Israel.

232) Asher Yahalom, Yosef Pinhasi, Michael Kopylenko & Michael Ensimov "An atmospheric transmission software for wide band communication applications" the Israeli IEEE AP_MTT Symposium, May 8, 2006, Herzliya, Israel.

233) Yosef Pinhasi, Asher Yahalom & Gad A. Pinhasi "Propagation of Ultra Short Pulses in Lossy Dielectric Media" Second Israeli conference on THz and Mm-waves Technology and Applications, May 23, 2006, Ariel, Israel.

234) A. Yahalom, Y. Pinhasi, M. Kopylenko and M. Ensimov "An atmospheric transmission software for wide band communication & imaging applications" Military Technologies Conference, May 30, 2006, Tel-Aviv, Israel.

235) Yosef Pinhasi & Asher Yahalom, "Development of Space-Frequency Model for Indoor Radio-wave Propagation: Proposal for Years 4-6" ISRC - Short Range Consortium Years 4-6 Conference, May 31, 2006, Ramat Efaal, Israel.

236) Alon Faingersh, Egor Dyunin, Jeremy Dadoun, Khona Garb, Asher Yahalom, Moshe Einat, Yosef Pinhasi, Boris Kapilevich, Yehoshua Socol and Avraham Gover "New Resonator for the Israeli FEL" The 52nd Meeting of the Israel Physical Society (IPS 2006).

237) Mark Volshonok, Egor Dyunin, Asher Yahalom, Moshe Einat, Yuri Lurie, Yehoshua Socol, Yosef Pinhasi and Avraham Gover "Present Status of the Israeli FEL: Increasing FEL Power by Electron Beam Energy Boosting" The 52nd Meeting of the Israel Physical Society (IPS 2006).

238) Asher Yahalom "Simplified Variational Principles for Barotropic Magnetohydrodynamics" The 52nd Meeting of the Israel Physical Society (IPS 2006).

239) Yosef Pinhasi, Yuri Lurie, and Asher Yahalom "Space-frequency model of ultra wide-band interactions in free-electron lasers" The 52nd Meeting of the Israel Physical Society (IPS 2006).

240) Asher Yahalom "Simplified Variational Principles for Barotropic Fluid Dynamics" The 52nd Meeting of the Israel Physical Society (IPS 2006).

241) Yosef Pinhasi, Asher Yahalom, Yehoshua Socol, Sergey Petnev and Nir Harpaz "Indoor multi-path propagation of UWB signals" ISRC academic conference 31.1.07 Shfaim.

242) A. Yahalom & D. Lynden-Bell "Simplified Variation Principles for Barotropic Magnetohydrodynamics" 10th IPSTA meeting Ben-Gurion University March 27th, 2007.

243) Asher Yahalom, Yosef Pinhasi, Yehoshua Socol, Ben Paz & Gil Kidron "Imaging with THz at stand-off distances (20-30 meter)-The State of the Art" the Israeli IEEE AP_MTT Symposium, May 15, 2007, Tel Aviv, Israel.

244) Y. Pinhasi, A. Yahalom, B. Kapilevich, Y. Socol, D. Hardon, B. Paz & G. Kidron "Tera-Hertz Technology for Remote Sensing" Military Technologies Conference 2007, Tel-Aviv, Israel.

245) Asher Yahalom, Yosef Pinhasi, Ben Paz & Gil Kidron "Imaging with THz at stand-off distances (20-30 meter)-The State of the Art" Electromagnetic Radiation, ELF Electric and Magnetic fields - Protection & Safety, June 17, 2007, Holon, Israel.

246) Asher Yahalom &Yosef Pinhasi "Imaging with THz at stand-off distances - final report" AVNET three years conclusion conference 29.7.07 Mossad Neeman, Technion.

247) Asher Yahalom "Simplified Variational Principles for Stationary Barotropic Magnetohydrodynamics" The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

248) Boris Kapilevich, Moshe Einat, Boris Litvak, Malachi Harpaz, Michael Kanter, Avraham Gover, Yosef Pinhasi and Asher Yahalom "Imaging behind thick walls - a FEL feasibility study" The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

249) Robert Englman, Asher Yahalom and Tamash V´ertesi "Unexpected Phase-Jumps Upon Cycling Around a Conical Intersection" The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

250) Robert Englman and Asher Yahalom "Vibronic Reduction Factors in $E \otimes (\beta_1 + \beta_2)$" The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

251) Asher Yahalom and Robert Englman "Environment-effect on the Berry phase of a driven $G' \otimes (\varepsilon(t) + \tau_1(t))$ system by the square root method "The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

252) Asher Yahalom, Lawrence Horwitz, Yossi Ben Zion, Meir Lewkowicz, Marcelo Schiffer, and Jacob Levitan "Geometry and Stability of Dynamical Systems" The 53rd Meeting of the Israel Physical Society (IPS07 9/12/2007) Weitzman Institute, Rehovot.

253) Asher Yahalom &Yosef Pinhasi "Characterization wall transmission and reflection via UWB measurements" ISRC academic conference 31.1.08 Shfaim.

254) Asher Yahalom "CFD Methods Derived from Simplified Variational Principles" The 24th Israel Symposium on Computational Mechanics (ISCM 24), April 3, 2008, Tel-Aviv University, Tel-Aviv, Israel.

255) Asher Yahalom "Future Military Applications of Free Electron Lasers" Military Technologies Conference, Airport City, Avenue Center 18.5.2008.

256) Asher Yahalom, "Non-Stationary Barotropic Magnetohydrodynamics as a Four Function Field Theory" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

257) Asher Yahalom, Robert Englman & Yosef Pinhasi, "Covariant Formulation of the Dynamics in a Dissipative Quantum Dielectric Obtained from a Simplified Lagrangian" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

258) Asher Yahalom, "The Geometrical Meaning of Time" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

259) Yosef Pinhasi, Asher Yahalom, Yuri Lurie, and Gad A. Pinhasi "Backward Wave Excitation and Generation of Oscillations in Distributed Gain Media and Free-Electron Lasers in the Absence of Feedback - Beyond the High Gain Approximation" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

260) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron and Yosi Buda, "RF Transmission through Multiple Layers" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

261) Boris Kapilevich, Yosef Pinhasi, Asher Yahalom and Boris Litvak, "THz Characterization of Lossy Materials Using Multi-Layers Measuring Cell" The 54th Meeting of the Israel Physical Society (IPS08 28/12/2008) Ben-Gurion University, Beer-Sheva.

262) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron, Elhanan Shifman and Yosi Buda, "Transmission through Multiple Layers – Effect on Wideband Signals" The ISRC Academy Meeting (22/01/2009) Technion, Haifa.

263) Asher Yahalom "Variational Principles of MHD with non-Trivial Topology" 11th IPSTA meeting, February 1st, 2009, Hebrew University, Jerusalem, Israel.

264) Asher Yahalom "Simplified Variational Principles for Barotropic Magnetohydrodynamics and their Computational Implications" The 26th Israel Symposium on Computational Mechanics (ISCM 26), April 23, 2009, Technion, Haifa., Israel.

265) Asher Yahalom, Yosef Pinhasi, Elhanan Shifman and Sergey Petnev "Transmission through Multiple Layers in UWB and Narrow Band Communications a Joint Theoretical & Experimental Perspective" The annual meeting of the Israeli Electronic & Electrical Engineers Society, (Electricity 2009), November 1-2, 2009, David Intercontinental Hotel, Tel-Aviv, Israel.

266) Asher Yahalom, "Stability of Radial Perturbations for Non-Uniformly Rotating Self-Gravitating, Finite, Gaseous Disks" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

267) Asher Yahalom, Jacob Levitan, Meir Lewkowicz, Larry Horwitz, "Lyapunov vs. Geometrical Stability Analysis of the Kepler and the Restricted Three Body Problem" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

268) Asher Yahalom, “Aharonov - Bohm Effects in Topological Magnetohydrodynamics” The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

269) Alon Eliran, Avraham Gover, Yosef Pinhasi, Asher Yahalom, Yuri Lurie, Gad Pinhasi, "Statistical Study of Undulator Radiated Power by a Classical Detection System in the Mm-Wave Regime" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

270) Asher Yahalom, Yosef Pinhasi, Elhanan Shifman, Sergey Petnev, "Transmission through Multiple Layers in UWB Communications" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

271) Yosef Pinhasi, Asher Yahalom, Gad A. Pinhasi, "Propagation Analysis of Ultra-Short Pulses in Resonant Dielectric Media" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

272) Asher Yahalom, "Simplified Variational Principles for Non-Stationary Topological Fluid Dynamics" The 55th Meeting of the Israel Physical Society (IPS09 13/12/2009) Bar-Ilan University, Ramat Gan, Israel.

273) Asher Yahalom, “Barotropic Magnetohydrodynamics as a Four Function Field Theory and New Topological Constants of Motion” 12th IPSTA meeting, January 25th, 2010, Technion, Haifa, Israel.

274) Alon Eliran, Naftaly Goldshleger, Eyal Ben Dor & Asher Yahalom, "Millimetric Waves, a Novel and Promising Remote Sensing Tool for Sub-Soil Salinity Mapping: First Steps" Technologies for Remote Sensing, Detection and Imaging, Ariel University Center of Samaria, Ariel, Israel. Tuesday, June 1, 2010.

275) Asher Yahalom, “Simplified Variational Principles for Stationary Barotropic Fluid Dynamics” The 31st Israeli Conference on Mechanical Engineering (ICME2010), Dan Panorama Hotel, Tel-Aviv, 2-3 June 2010.

276) Asher Yahalom, “The Gravitational Origin of the Distinction between Space and Time” The 56th Meeting of the Israel Physical Society (IPS10 05/12/2010) Tel-Aviv University, Tel-Aviv, Israel.

277) Robert Englman and Asher Yahalom, “Distributed Phase Acquisition in a Wave Function” The 56th Meeting of the Israel Physical Society (IPS10 05/12/2010) Tel-Aviv University, Tel-Aviv, Israel.

278) Alon Eliran, Naftaly Goldshleger and Asher Yahalom, “A novel method for studying soil 3D structure using millimeter and sub-millimeter (THz) waves” The 56th Meeting of the Israel Physical Society (IPS10 05/12/2010) Tel-Aviv University, Tel-Aviv, Israel.

279) Asher Yahalom, Jacob Levitan, Meir Lewkowicz and Larry Horwitz, “Lyapunov vs. Geometrical Stability Analysis of Circular and Real eccentricity

Kepler Orbits" The 56th Meeting of the Israel Physical Society (IPS10 05/12/2010) Tel-Aviv University, Tel-Aviv, Israel.

280) H. S. Marks, M. Volshonok, E. Dyunin, A. Gover, Y. Lasser, R. Shershevski and A. Yahalom "Improvement of a Wiggler by Single Axis Magnetic Measurement, Virtual Synthesis and Relocation of Magnets" The 56th Meeting of the Israel Physical Society (IPS10 05/12/2010) Tel-Aviv University, Tel-Aviv, Israel.

281) Asher Yahalom "Aharonov ─ Bohm Effects in Topological Magneto-Hydrodynamics" 13th IPSTA meeting, February 10, 2011, Lax Auditorium, Raab building, AUC, Ariel, Israel.

282) Asher Yahalom "A New Diffeomorphism Symmetry Group of Magnetohydrodynamics" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

283) Asher Yahalom & Robert Englman "Partial Phases in a Circling Electron" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

284) Yosef Pinhasi & Asher Yahalom " EHF for Satellite Communications: The New Broadband Frontier" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

285) Moshe Einat & Asher Yahalom "Induced Static Magnetic Field by a Cellular Phone" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

286) Asher Yahalom "Stability in the Weak Variational Principle of Barotropic Flows and Implications for Self-Gravitating Discs" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

287) Konstantin Komoshvili, Jacob Levitan, Stella Aronov, Asher Yahalom & Boris Kapilevich "Millimeter Waves Non-Thermal Effect on Human Lung Cancer Cells" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

288) Asher Yahalom "Faster than Light Particles within the Framework of Relativity" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

289) Asher Yahalom, Meir Lewkowicz, Jacob Levitan, Gil Elgressy, Lawrence Horwitz & Yossi Ben-Zion "Uncertainty Relation for Chaos" The 57th Meeting of the Israel Physical Society (IPS11 25/12/2011) Technion, Haifa, Israel.

290) Asher Yahalom "A New Diffeomorphism Symmetry Group of Magnetohydrodynamics" The 14th Meeting of the Israel Plasma Science and Technology Association (IPSTA), 28/02/2012, Weizmann Institute of Science, Rehovot, Israel.

291) Asher Yahalom "Selected Scientific Projects" Israeli Higher Education Conference, 03/05/2012, Bet Hatfozot, Tel-Aviv, Israel.

292) Y. Pinhasi, B. Kapilevich, A. Yahalom, B. Litvak, M. Anisimov and D. Hardon "Monitoring of atmosphere attenuation in W-band" 2012 IEEE 27th Convention of Electrical & Electronics Engineers in Israel (IEEEI 2012).

293) Alon Kuperman, Yuri Ditkovich, Asher Yahalom, Yael Ditkovich & Saad Tapuchi "Wind turbine performance index" 2012 IEEE 27th Convention of Electrical & Electronics Engineers in Israel (IEEEI 2012).

294) Robert Englman & Asher Yahalom "Minimal Model for Decoherence and Thermalization Through Time-Domain Ergodicity" The 58th Meeting of the Israel Physical Society (IPS12 09/12/2012) Hebrew University, Jerusalem, Israel.

295) Asher Yahalom "Aharonov - Bohm Constraint for Fusion" The 15th Meeting of the Israel Plasma Science and Technology Association (IPSTA), 04/02/2013, Holon Institute of Technology, Holon, Israel.

296) Michael Byalsky, Yuri Ditkovich, Alon Kuperman and Asher Yahalom "Using Wind Energy Efficiently in the Ariel Area" The 23rd convention of Judea & Samaria studies, June 13, 2013, Ariel, Israel.

297) Asher Yahalom " Magnetohydrodynamics as a Field Theory, Topological and Group Theoretical Aspects" The 31st IVS Annual Conference: IVS-2013, Monday, September 30, 2013, Air-Force House, Herzliya, Israel. **(Invited Lecture)**

298) Asher Yahalom "The Self Gravitating Torus a New Astrophysical Object" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

299) Asher Yahalom "Gravity and Faster than Light Particles" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

300) Asher Yahalom, Yosef Pinhasi, Anatoly Lipsky & Neda Miteva "Allocating Malfunctions in High Voltage Grids Using a Distributed Analytic Dispersion Model" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

301) Miron Tuval & Asher Yahalom "Relativistic Ponder Motive Force Generator" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

302) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

303) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor & Menachem Agassi "Empirical Model for Backscattering at Millimeter-Wave Frequency by Bare Soil Sub-Surface With Varied Moisture Content" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

304) Alon Eliran, Naftaly Goldshleger, Asher Yahalom, Eyal Ben-Dor & Menachem Agassi "First Results From a Millimeter-Wave Measurement of Soil Moisture Content" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

305) J. Levitan, A. Yahalom, L. Horwitz & M. Lewkowicz "On the Stability of Hamiltonian Systems with Weakly Time Dependent Potentials" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

306) Asher Yahalom "Variational Analysis of Topological Stationary Barotropic MHD in the Case of Single Valued Magnetic Surfaces" The 59th Meeting of the Israel Physical Society (IPS13 01/12/2013) Weizmann Institute of Science, Rehovot, Israel.

307) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" IEEE EMC chapter in Israel conference (EMC 2014), Holon Institute of Technology, Holon, Israel, January 30, 2014.

308) A. Friedman, A. Gover, E. Dyunin, Y. Lurie, M. Einat, B. Kapilevich, A. Yahalom, O. Horwitz, D. Cheskis, E. Farber, A. Abramovich and Y. Vashdi "Design and Status of Tera-Hertz FEL in Ariel University" the 16th Israeli Plasma Science and Technology Conference, Tel-Aviv University, Feb. 5th, 2014.

309) H. S. Marks, H. Kleinman, A. Nause, A. Gover, M. Einat, M. Kanter, D. Borodin, Y. Lurie, B. Kapilevich, B. Litvak, A. Yahalom & A. Friedman "High Power Long-Pulse Operation of a Millimeter Wave FEL" the 16th Israeli Plasma Science and Technology Conference, Tel-Aviv University, Feb. 5th, 2014.

310) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" Inaugural One-Day Workshop of the ICRC (Interdisciplinary Cancer Research Center) Ariel University, 21.05.2014, Ariel, Israel.

311) Asher Yahalom "Variational Principles for Topological Barotropic Fluid Dynamics" The 60th Meeting of the Israel Physical Society (IPS14 21/12/2014) Ben-Gurion University, Beer-Sheba, Israel.

312) Ofir Flom, Haggai Zilberberg, Asher Yahalom & Yaakov Levitan "Tunneling as a Source for Quantum Chaos" The 60th Meeting of the Israel Physical Society (IPS14 21/12/2014) Ben-Gurion University, Beer-Sheba, Israel.

313) Nezah Balal, Eyal Magori, Igor Dyunin, Aharon Friedman & Asher Yahalom "Design of a Permanent Magnet Wiggler for a THz Free Electron Laser" The 60th Meeting of the Israel Physical Society (IPS14 21/12/2014) Ben-Gurion University, Beer-Sheba, Israel.

314) Michael Suleymanov, Lawrence Horwitz and Asher Yahalom "Covariant relativistic space-time string" The 60th Meeting of the Israel Physical Society (IPS14 21/12/2014) Ben-Gurion University, Beer-Sheba, Israel.

315) Asher Yahalom "Non-Stationary Barotropic Magnetohydrodynamics as a Four Function Field Theory" 16th Israeli mini-workshop on applied and computational mathematics, (30/12/2014) Technion, Haifa, Israel.

316) A. Yahalom "Variational Principles of Non-Barotropic MHD" the 17th Israeli Plasma Science and Technology Conference, Ariel University, Feb. 16th, 2015.

317) H. Marks, Y. Wolowolski, H. Klein, A. Gover, D. Borodin, A. Dampti, Y. Lasser, M. Kanter, M. Einat, Y. Vashdi, A. Yahalom, A. Friedman "Power Optimization of an Electrostatic Accelerator Free Electron Laser Oscillator at 95 GHz" the 17th Israeli Plasma Science and Technology Conference, Ariel University, Feb. 16, 2015.

318) A. Yahalom "Variational Principles for Topological Barotropic Fluid Dynamics" 33rd Israeli Conference on Mechanical Engineering (ICME 2015), Dan Panorama Hotel, Tel-Aviv, Israel, March 2, 2015.

319) Stella Aronov, Konstantin Komoshvili, Jacob Levitan, Katia Karakov, Asher Yahalom & Boris Kapilevich "Non-thermal effects of millimeter waves on human lung cancer cells" The 7th Annual Meeting of the Israel Society for Cancer Research, Smolarz Auditorium, Tel-Aviv University, Israel. June 4, 2015.

320) Asher Yahalom "On the Difference between Time and Space" The 61st Annual Meeting of the Israel Physical Society, December 13th, 2015, Wohl center, Bar Ilan University, Ramat Gan, Israel.

321) Asher Yahalom, Meir Lewkowicz, Jacob Levitan, Gil Elgressy, Lawrence Horwitz, Yossi Ben-Zion "Uncertainty Relation for Chaos" The 61st Annual Meeting of the Israel Physical Society, December 13th, 2015, Wohl center, Bar Ilan University, Ramat Gan, Israel.

322) Asher Yahalom "Variational Principles of non-Barotropic MHD" The 61st Annual Meeting of the Israel Physical Society, December 13th, 2015, Wohl center, Bar Ilan University, Ramat Gan, Israel.

323) Asher Yahalom "Simplified Lagrangian and Hamiltonian of non-Barotropic MHD" The 18th Israeli Conference on Plasma Science and its Applications, March 2, 2016, Ben Gurion University, Beer Sheba, Israel.

324) Shay Rozenberg & Asher Yahalom “A THz Slot Antenna Optimization using Analytical Techniques” EMC 2016, May 3, HIT, Holon, Israel.

325) A. Yahalom, V. Prikhodko, M. Dahan &. M. Averbukh ״Experimental verification of internal resistance and capacitance of CPQ2300S Li-ion ultracapacitors (JSR Co.)״ Energy Conference – Ariel University, Ariel 28/3/16.

326) Asher Yahalom "Topological Conservation Laws in Non-Barotropic Magnetohydrodynamics" The 62nd Annual Meeting of the Israel Physical Society, December 25th, 2016, Tel Aviv University, Tel Aviv, Israel.

327) Asher Yahalom "Momentum Conservation in a Relativistic Engine" The 62nd Annual Meeting of the Israel Physical Society, December 25th, 2016, Tel Aviv University, Tel Aviv, Israel.

328) Lawrence Horwitz, Asher Yahalom, Jacob Levitan & Meir Lewkowicz "An Underlying Geometrical Manifold for Hamiltonian Mechanics" The 62nd Annual Meeting of the Israel Physical Society, December 25th, 2016, Tel Aviv University, Tel Aviv, Israel.

329) Ofir Flom, Asher Yahalom, Hagai Zilberberg & Jacob Levitan "Quantum Mechanics in a Double Potential Well: Log-Analytic Uncertainty Relations" The 62nd Annual Meeting of the Israel Physical Society, December 25th, 2016, Tel Aviv University, Tel Aviv, Israel.

330) Asher Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" The 19th Israeli conference on Plasma Science, Hebrew University of Jerusalem, Jerusalem, Israel, 5th February 2017.

331) Asher Yahalom “A Three Function Variational Principle for Stationary Non-Barotropic Magnetohydrodynamics” the 20th Israeli Conference on Plasma Science and its Applications (IPSTA 2018) Tel-Aviv University, 29th Jan. 2018, Israel.

332) Aharon Friedman, E. Dyunin, A. Naus, Y. Lurie, A. Yahalom, A. Gover “The Super-Radiant FEL Project in Ariel University” the 20th Israeli Conference on Plasma Science and its Applications (IPSTA 2018) Tel-Aviv University, 29th Jan. 2018, Israel.

333) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, כנס המדע, התנ"ך והמדבר. מדרשת שדה בוקר 17-18.5.18.

334) Asher Yahalom “Metage Symmetry Group of Non Barotropic Magnetohydrodynamics and the Conservation of Cross Helicity” IVS 2018 36th Annual Conference & Workshop (joined with IPSTA 2018 conference-plasma section), September 6, Leonardo City tower convention Center, Ramat Gan, Israel.

335) Zvi Cheshnover, Haim Cohen, Asher Yahalom, Yosef Pinhasi & Yosef Rabinovich “Predicting Diamonds Purity & Value by Using MMW/MW Spectroscopy” the 5th biennial conference of Israel’s Technology Transfer Organization (ITTN), 22nd October, 2018.

336) Itzhak Chaimov & Asher Yahalom "Correcting for FEL Magnetic Field Distortions: The Method of Bilinear Shimming" The 64th Annual Meeting of the Israel Physical Society, December 9, 2018, Hebrew University, Jerusalem, Israel.

337) Asher Yahalom "Label Symmetry Sub Groups in Fluid Dynamics and Magnetohydrodynamics" The 64th Annual Meeting of the Israel Physical Society, December 9, 2018, Hebrew University, Jerusalem, Israel.

338) Lawrence Horwitz, Asher Yahalom, Jacob Levitan & Meir Lewkowicz "An Underlying Geometrical Manifold for Hamiltonian Mechanics" The 64th Annual Meeting of the Israel Physical Society, December 9, 2018, Hebrew University, Jerusalem, Israel.

339) Asher Yahalom "Relativistic Engine" Ariel Energy Conference, June 17, 2019, Ariel, Israel.

340) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, כנס אקדמיקס, האקדמיה הלאומית למדעים, 6-2 בספטמבר, 2019. קיבוץ מורן, ישראל.

341) Michal Wagman, Lawrence P. Horwitz and Asher Yahalom "Retardation Theory: A New Approach to the Dark Matter Problem" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

342) Shailendra Rajput & Asher Yahalom "Relativistic Engine: Momentum and Energy Conservations" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

343) Shailendra Rajput, Ayan Barbora, Konstantin Komoshvili, Stella Aronov, Jacob Levitan & Asher Yahalom "Scrutinizing the effect of millimeter wave irradiation on Saccharomyces cerevisiae yeast cells" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

344) Muneer Nabwani, A. Yahalom & Y. Pinhasi "Real Time Fault Detection Using the Retardation Method" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

345) Yossi Rabinowitz, Ariel Etinger, Asher Yahalom, Haim Cohen & Yosef Pinhasi "Millimeter Wave Spectroscopy for Evaluating Diamond Color Grades" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

346) Shailendra Rajput, Moshe Averbukh & Asher Yahalom "A new concept of mechanical to electrical energy conversion employing electrostatic principle and electrochemical approach" The 65th Annual Meeting of the Israel Physical Society, February 17, 2020, Weizman Institute of Science, Rehovot, Israel.

347) S. Rajput, M. Averbukh, A. Yahalom, “Electrostatic Energy Generator for Smart Transport,” The 1st Israeli Smart Transportation Students Conference (ISTSC-1), Bar-Ilan University, Israel, December 3, 2020 (Virtual).

348) S. Rajput, M. Averbukh, A. Yahalom, “Electrostatic Energy Generator for Portable Devices,” IVS-IPSTA 2020 - 38th Annual Conference, Israel, December 13, 2020 (Virtual).

349) A. Yahalom, "Retardation Effects in Space Technology and Astronomy" AGASS Meeting, Ariel, Israel, February 9, 2021.

350) A. Yahalom, "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" The 66th Annual Meeting of the Israel Physical Society, February 22, 2021, Virtual.

351) Yossi Rabinowitz, Asher Yahalom, Haim Cohen & Yosef Pinhasi, "Microwave Spectroscopy as a Potential Tool for Color Grading of Diamonds" The 66th Annual Meeting of the Israel Physical Society, February 22, 2021, Virtual.

352) Shailendra Rajput & Asher Yahalom "Electric Relativistic Engine: Preliminary Analysis" The 66th Annual Meeting of the Israel Physical Society, February 22, 2021, Virtual.

353) Shailendra Rajput, Ayan Barbora, Konstantin Komoshvili, Stella Aronov, Jacob Levitan & Asher Yahalom "Interaction of Non-Ionizing Millimeter Wave and Yeast Cells: An Approach for Biomedical Devices" The 66th Annual Meeting of the Israel Physical Society, February 22, 2021, virtual.

354) A. Yahalom, "Nano Relativistic Motor" Workshop on Functional Photonics, January 10, 2022 – Ariel University, Ariel, Israel.

355) A. Yahalom, "A Nano Relativistic Motor: Preliminary Analysis " the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

356) A. Yahalom & Y. Shoshani, "Apriorics: A Possible Connection Between Graph Theory and Elementary Particles Theory" the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

357) A. Yahalom, "Tully–Fisher Relations and Retardation Theory for Galaxies" the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

358) A. Yahalom, D. Greenberg & M. Byalsky "Valuation of Wind Energy Turbines Using Volatility of Wind and Price" the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

359) P. Sharma & A. Yahalom, "Topological Invariants in non-ideal MHD" the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

Special Seminars

360) A. Yahalom, "New Developments in the theory of Barotropic Flows and Applications to the Stability Analysis of Gaseous Disks", Institute of Astronomy, Cambridge (1995).

361) Asher Yahalom "Antennas: General Overview" Software Radio Consortium Seminar, October 21, 2002, Nice Ltd. Raanana, Israel.

362) Yosef Pinhasi and Asher Yahalom "Pulse Transmission at EHF" Ultra wide Band Seminar, January 19, 2003, Tel-Aviv University, Tel-Aviv, Israel.

363) Asher Yahalom & Gad Pinhasi "Simulating Fluid Dynamics using a Numerical Variational Principle for a non-single valued potential" Illinois Institute of Technology Fluid Dynamics Center, April 2, *2003,* Chicago, Illinois, USA.

364) Asher Yahalom & Gad Pinhasi "Simulating Fluid Dynamics using a Numerical Variational Principle in a Multiple Connected Enviroment " FuelTech - Acuitiv Seminar, April 3, *2003,* Batavia, Illinois, USA.

365) Yosef Pinhasi, Asher Yahalom, Oren Harpaz, Guy Vilner and Tal Levi "Space-Frequency Analysis of Ultra Short Pulse Transmission in the Extremely High Frequency Band" Electrical Engineering Seminar, January 2004, Tel-Aviv University, Tel-Aviv, Israel.

366) Asher Yahalom & Robert Englman ""Square-root" Method in Dissipative Quantum Dynamics" Eötvös Loránd Fizikai Társulat Termodinamikai szakcsoport Márc. 25. 16.30 (2004).

367) Asher Yahalom "Numerical Methods Based on Variational Principles in Fluid Dynamics" Mathematics Department Colloquium, 1 December 2004, Bar-Ilan University, Ramat Gan, Israel.

368) Yosef Pinhasi, Asher Yahalom, Oren Harpaz, Guy Vilner and Tal Levi "Space-Frequency Analysis of Ultra Short Pulse Transmission in the Extremely High Frequency Band" Applied Physics Seminar, December 2004, Hebrew University, Jerusalem, Israel.

369) Asher Yahalom "The Center for Radiation Sources and Applications - User Center" Hadassah Hospital Seminar, December 2004, Jerusalem, Israel.

370) A. Yahalom and Y. Pinhasi "Control of Millimeter wave Propagation by Tailoring the Dispersive Properties of the Medium" The College of Judea and Samaria, Faculty of Engineering, January 19, 2005, Ariel, Israel.

371) Asher Yahalom "The Center for Radiation Sources and Applications - User Center" Invited lecture for the department of industrial engineering, College of Judea & Samaria, 2005, Ariel, Israel.

372) D. Ophir, A. Yahalom, G. Pinhasi and M. Kopylenko "A Combined Variational & Multi-grid Approach for Fluid Simulation" IOA seminar, University of Cambridge, Cambridge, United Kingdom (2006).

373) Yosef Pinhasi, Asher Yahalom & Sergey Petnev "Propagation of Ultra-Wide Band Signals Indoor Short Range Wireless Networks" A meeting with ELBIT representatives, Azrieli, Tel-Aviv, Israel (27 July 2006).

374) Asher Yahalom & Yosef Pinhasi "Corrections to Snell's Law in absorptive media" A meeting with ELBIT representatives, Azrieli, Tel-Aviv, Israel (27 July 2006).

375) Yosef Pinhasi, Asher Yahalom, Yehoshua Socol, Sergey Petnev and Nir Harpaz "Indoor Multi-Path Propagation of UWB and OFDM Signals" ISRC meeting with ministry of industry & commerce inspectors 5/3/2007.

376) Asher Yahalom "Free Electron Lasers - Principles and Applications" Colloquium, Afeka College, Tel-Aviv, Israel (29 March 2007).

377) Asher Yahalom "Free Electron Lasers - Principles and Applications" Department of Chemistry Seminar, College of Judea & Samaria, Ariel, Israel (10^{th} of June 2007).

378) Asher Yahalom "Physics and the Brain" Neuroscience Day, College of Judea & Samaria, Ariel, Israel (June 3^{rd}, 2007).

379) Asher Yahalom "THz Detector Arrays for Imaging" PDR Ministry of Defense 17.2.08 Ariel.

380) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron & Yosi Buda "Characterization Wall Transmission and Reflection via UWB Measurements" meeting with professional referees ISRC consortium 21.2.08 Ariel.

381) Asher Yahalom "Free Electron Lasers - Principles and Applications" Patent Office, Jerusalem, Israel (06 March 2008).

382) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron & Yosi Buda "Characterization Wall Transmission and Reflection via UWB Measurements-Fifth Year Program" meeting with professional referees ISRC consortium 19.3.08 Ariel.

383) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron & Yosi Buda "Development of a Model for a Wide Band Communication Channel in a Closed Environment - Fifth Year" meeting with professional referees ISRC consortium 20.11.08 Ariel.

384) Asher Yahalom "Civilian Applications of THz Technology" meeting with TELEM forum representatives 31.3.2009 Ariel.

385) Asher Yahalom, Yosef Pinhasi, Sergey Petnev, Gilad Kidron Elhanan Shifman & Yosi Buda "Transmission through Multiple Layers – Effect on Wideband Signals & Some Experimental Results" A channel model meeting ISRC consortium 6.4.09 MetaLink, Yakom.

386) Asher Yahalom "Non-Stationary Barotropic Magnetohydrodynamics as a Four Function Field Theory with Non-Trivial Topology" Applied Mathematics Colloquium 26.4.09, Department of Mathematics, Bar-Ilan University, Ramat-Gan.

387) Asher Yahalom & Miron Tuval "ELMAG", Presentation at Raytheon 08.03.10, Tucson, Arizona, USA.

388) Asher Yahalom "New Topological Constants in Magnetohydrodynamics and Relations to the Aharonov - Bohm Effect" Mathematical Physics Seminar, Jerusalem College of Technology, 01.06.10, Jerusalem, Israel.

389) K. Komoshvili, Y. Levitan, S. Aronov, A. Yahalom and B. Kapilevich " W-band Electromagnetic Waves Interaction with Cancer Cells" Physics Department Seminar, AUC, 27.01.2011, Ariel, Israel.

390) Asher Yahalom "Using Fluid Variational Variables to Obtain New Analytic Solutions" Applied Mathematics Colloquium, Bar Ilan University, 02.06.2011, Ramat-Gan, Israel.

391) Asher Yahalom, Anatoly Lipsky, Neda Miteva & Yosef Pinhasi "Measuring Electric Quality and Allocating Malfunctions in High Voltage Grids" ISG Conference, 16.08.11, Ben-Gurion University, Beer-Sheva, Israel.

392) Asher Yahalom "Magnetohydrodynamics as a Field Theory: Topological and Group Theoretical Aspects" 11 October 2012, Newton Institute of Mathematical Sciences, Cambridge, UK.

393) Asher Yahalom, Anatoly Lipsky, Neda Miteva & Yosef Pinhasi "Allocating Malfunctions in High Voltage Grids Using a Distributed Model" 5 December 2012, Mobix, Petah-Tikva, Israel.

394) K. Komoshvili1, J. Levitan, H. Bohr, A. Yahalom, B. Kapilevich, K. Karakov & S. Aronov "Effect of Millimeter Waves on Human Lung Cancer Cells" 5 December 2012, Ariel University Center of Samaria, Ariel, Israel.

395) Asher Yahalom, Anatoly Lipsky, Neda Miteva & Yosef Pinhasi "Allocating Malfunctions in High Voltage Grids Using a Distributed Model-

Preliminary Dispersion Considerations" 12 February 2012, Motorola, Airport City, Israel.

396) Asher Yahalom "Magnetohydrodynamics as a Field Theory, Topological and Group Theoretical Aspects" 13 March 2013, Physics Department, Ariel University, Ariel, Israel.

397) Asher Yahalom "Magnetohydrodynamics as a Field Theory, Topological and Group Theoretical Aspects" 10 April 2013, Electrical & Electronics Engineering Department, Ariel University, Ariel, Israel.

398) Asher Yahalom, Anatoly Lipsky, Neda Miteva & Yosef Pinhasi "Allocating Malfunctions in High Voltage Grids Using a Distributed Model-Analytic Dispersion Model" 28 October 2013, Motorola, Airport City, Israel.

399) Asher Yahalom, Anatoly Lipsky, Neda Miteva & Yosef Pinhasi "Annual Activity in the Area of Fault Location – Second Year of the ISG Consortium" November 4, 2013, HIT, Holon, Israel.

400) Asher Yahalom "Local Topological Stability Bounds of Magnetohydrodynamics" Applied Mathematics Colloquium, Bar Ilan University, 12.01.2014, Ramat-Gan, Israel.

401) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" Department of Electronic Engineering Seminar, University of Rome "Tor Vergata", 21.01.2014, Rome, Italy.

402) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" Meeting with Beijing Zhong Cheng Kang Fu Company Ltd., Ariel University, 04.11.2015, Ariel, Israel.

403) K. Komoshvili, J. Levitan, A. Yahalom, B. Kapilevich & S. Aronov "Millimeter Waves Affect Human Lung Cancer Cells" Natural Sciences Faculty Conference June 16, 2016, Ariel University, Ariel, Israel.

404) K. Komoshvili, J. Levitan, K. Karakov, A. Yahalom, B. Kapilevich & S. Aronov "Non-Thermal Effect of Millimeter Waves on Human Lung Cancer Cells: Mortality and Senescence Effects" FEL day in collaboration with the department of physics, July 5, 2016, Ariel University, Ariel, Israel.

405) A. Yahalom "Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" Particles and Fields Seminar, June 19, 2017, Ben Gurion University, Beer Sheba, Israel.

406) A. Yahalom "Quantum Aspects of Information Theory" Meeting of the Israeli Consortium of quantum communications, August 6, 2018, Airport City, Israel.

407) מה אור? הרצאה מאת פרופסור אשר יהלום לרגל יום המדע, שמיני של חנוכה, ב טבת, תשע"ט, אוניברסיטת אריאל.

408) A. Yahalom “Some Current Projects" Meeting with Academic Guests from China, March 18, 2019, Ariel, Israel.

409) Asher Yahalom "Dark Matter: Reality or a Relativistic Illusion?" Seminar for the Faculty of Mathematics and Physics, Charles University, Prague 2019.

410) Asher Yahalom "Variational Principles and Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics" PPPL Theory Seminar, Princeton University, Princeton, USA 12.11.2019.

411) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, קולוקוויום אוניברסיטאי – אוניברסיטת אריאל, 2 בינואר, 2020. אריאל, ישראל.

412) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, הרצאה לתלמידים ארגון בשער – חטיבת הביניים דקל וילנאי, 10 לפברואר, 2020. מעלה אדומים, ישראל.

413) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, הרצאה לתלמידים ארגון בשער – הישיבה התיכונית יבנה, 20 לפברואר, 2020. חיפה, ישראל.

414) אשר יהלום "וראית את אחורי ופני לא יראו" תפיסת המציאות התנכית בין פיזיקה קלאסית לפיזיקה קוואנטית, הרצאה לעוזרים המשפטיים – בית הדין האזורי לעבודה תל-אביב, 5 למרץ 2020. בת ים, ישראל.

415) Asher Yahalom "Dark Matter: Reality or a Relativistic Illusion?" Seminar for the Department of Physics (Astro Journal Club), Ariel University, Ariel, Israel June 18, 2020.

416) Asher Yahalom "On the Difference between Time and Space" Seminar for the Department of Physics (Astro Journal Club), Ariel University, Ariel, Israel January 14, 2021.

417) Asher Yahalom "Noether Currents for Eulerian Variational Principles in Non-Barotropic Magnetohydrodynamics and Topological Conservations Laws" Astro Journal Club Seminar, Ariel University, Ariel, Israel, May 6, 2021.

418) A. Yahalom, "Retardation Effects in Space Technology and Astronomy" FEL bi-weekly seminar, Ariel, Israel, October 28, 2021.

419) A. Yahalom, "Variational principles and topological constants of motion for MHD", IUVSTA/IOP Webinar, 3 December 2021.

420) Asher Yahalom "Discussing the Paper "History of Dark Matter" by Gianfranco Bertone & Dan Hooper (Reviews of Modern Physics, Volume 90,

October–December 2018)" Astro Journal Club Seminar, Ariel University, Ariel, Israel, December 16, 2021.

421) אשר יהלום "תחבורה עתידנית: מהירות האור - תחבורה במדע הבדיוני, מגבלות פיזיקליות ופתרונות אפשריים" בית הסופר, תל אביב, 22 לדצמבר2021, ישראל. (לאחר הדקה ה 23)

422) אשר יהלום "תחבורה עתידנית" המועדון העברי בפריז, 23 לינואר 2022, וירטואלי.

423) אשר יהלום "טכנולוגיה לתחבורה חכמה" , 6 לפברואר 2022, וירטואלי. מפגש דיגיטלי בנושא תחבורה חכמה (החל מהדקה ה 54) – רשות החדשנות.

424) Asher Yahalom "Discussing the Paper "History of Dark Matter" by Gianfranco Bertone & Dan Hooper (Reviews of Modern Physics, Volume 90, October–December 2018) – part II" Astro Journal Club Seminar, Ariel University, Ariel, Israel, May 11, 2022.

425) אשר יהלום "מה בין אקלים לאמצעי התחבורה של העתיד? תחבורה עתידנית: תחבורה במדע הבדיוני, מגבלות פיזיקליות ופתרונות אפשריים" אקדמאניה, ארגון בשער 4.7.22, קדומים, ישראל.

426) Asher Yahalom "Discussing the Paper "History of Dark Matter" by Gianfranco Bertone & Dan Hooper (Reviews of Modern Physics, Volume 90, October–December 2018) – part III" Astro Journal Club Seminar, Ariel University, Ariel, Israel, November 30, 2022.

427) אשר יהלום "ישראל ומאזן האנרגיה העתידי" הדרך מוליכה? לאן?/שיח על עתידנות, 15.12.22, תל אביב, ישראל.

Organization of Conferences

1) Chairman of the annual FEL convention. (June 1999).

2) Chairman of the FEL Inaugural symposium. (June 2000).

3) Chairmen of section: “Modeling and simulation of physical properties and structure of materials”, First International Conference on Mathematical Modeling and Computer Simulation of Materials Technologies, College of Judea and Samaria, Ariel, Israel. (September 30 - October 4, 2002).

4) Chairmen of section: “Thermodynamics and kinetics of high temperature processes”, Third International Conference on Mathematical Modeling and Computer Simulation of Materials Technologies, College of Judea and Samaria, Ariel, Israel. (September 06 - 10, 2004).

5) Chairman of the Israel Plasma Science and Technology Association 8th conference (January 2005).

6) Chairmen of section: “Modeling and simulation of physical properties and structure of materials”, Fourth International Conference on Mathematical

Modeling and Computer Simulation of Materials Technologies, College of Judea and Samaria, Ariel, Israel. (September 11 - 15, 2006).

7) Chairman of the “Applications of Electromagnetic Radiation and Electro-optics in Homeland Security” Conference, Ariel University Center of Samaria (February 28, 2008).

8) Chairmen of section “Electron Device & Ultra Wideband Technology" 1st International IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems (IEEE COMCAS 2008), Tel-Aviv, Israel, May 13th - 14th, 2008.

9) Chairmen of " Session 13A: Fluid Engineering " 9th ASME Engineering Systems Design and Analysis Conference (ESDA 2008) Faculty of Mechanical Engineering, Technion Haifa, Israel, July 7-9, 2008.

10) Chairmen of "Session 1. Modeling and simulation of physical properties and structure of materials" Fifth International Conference on Mathematical Modeling and Computer Simulation of Materials Technologies, Ariel University Center of Samaria, Ariel, Israel. (September 8 - 12, 2008).

11) Organization of a Seminar on "Mach's Principle" by the 2008 Kavli prize winner Prof. Donald Lynden-Bell (Ariel, November 24, 2008).

12) Co-Chairman (with Prof. M. Zinigrad) of Session 1 of the Eighth Israeli-Russian Bi-National Workshop 2009 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials” (28.6 – 3.7 2009).

13) Chairman of the Israel Plasma Science and Technology Association 13th conference (February 2011).

14) Chairmen of Session "Parallel Session: Radiation Plasma Interaction & Arcs" Israel Plasma Science and Technology Association 13th conference (February 2011).

15) Scientific Committee "X Symposium of Magnetic Measurements" Warsaw, Poland, 17-19 October 2011.

16) Chairman of Session in "Exploring the Full Range of Classical Electrodynamics: from Applied Physics to General Relativity" 2nd GIF Workshop, February 19-23, 2012. Jerusalem College of Technology (JCT), Jerusalem, Israel.

17) Chairman of Session in the Twelfth Russian-Israeli Bi-National Workshop 2013 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials” July 8-10, 2013, Jerusalem-Ariel, Israel.

18) Chairman of Session 1B4 in IEEE COMCAS2013, the International IEEE Conference on Microwave, Communications, Antennas and Electronic Systems, David International Hotel, Tel Aviv, Israel, October 21-23, 2013.

19) Co-Chairman of Session 1B3 in IEEE COMCAS2013, the International IEEE Conference on Microwave, Communications, Antennas and Electronic Systems, David International Hotel, Tel Aviv, Israel, October 21-23, 2013.

20) Scientific Advisory Committee IPSTA 2014, the 16th Israeli Conference on Plasma Science and Applications, February 5, 2014, Tel Aviv University, Ramat Aviv, Israel.

21) Scientific Committee XI Symposium of Magnetic Measurements (SPM), Częstochowa - Czarny Las, Poland, 20th-22nd October 2014.

22) Session Chairman XI Symposium of Magnetic Measurements (SPM), Częstochowa - Czarny Las, Poland, 20th-22nd October 2014.

23) Round table leader - 2ARC Assuta-Ariel Research Council Conference, 14 June 2015, Assuta, Ramat Hahayal, Tel-Aviv, Israel.

24) Session Chairman the 18th Israeli Conference on Plasma Science and its Applications, March 2, 2016, Ben Gurion University, Beer Sheba, Israel.

25) Organizing Committee Member, the 18th Israeli Conference on Plasma Science and its Applications, March 2, 2016, Ben Gurion University, Beer Sheba, Israel.

26) Organizing Committee Member, the Ninth International Conference on Materials Technologies and Modeling MMT-2016, July 25-29, 2016. Ariel University, Ariel 40700, Israel.

27) Session Chairman: MEROSTA 2016: Mechatronics and Robotics, Structural Analysis. Corfu Island, Greece, July 14-17, 2016.

28) Session Chairman: The Ninth International Conference on Materials Technologies and Modeling MMT-2016, July 25-29, 2016. Ariel University, Ariel 40700, Israel.

29) Scientific Committee Member, XII Symposium of Magnetic Measurements & Modeling, Częstochowa – Siewierz, Poland, 17th – 19th October 2016.

30) Session 5B Chairman "Magnetic fluids and powders" XII Symposium of Magnetic Measurements & Modeling, Częstochowa – Siewierz, Poland, 17th – 19th October 2016.

31) Session Chairman: "AM2" The 19th Israeli conference on Plasma Science, Hebrew University of Jerusalem, Jerusalem, Israel, 5th February 2017.

32) Session Chairman: "SCS9-1" CHAOS 2017, 10th Chaotic Modeling and Simulation International Conference 30 May – 2 June 2017, Barcelona, Spain.

33) Session Chairman: “Preliminary Energy Considerations in a Relativistic Engine” Proceedings of the Israeli-Russian Bi-National Workshop “The optimization of composition, structure and properties of metals, oxides, composites, nano - and amorphous materials”, page 203-213, 28 - 31 August 2017, Ariel, Israel.

34) Session Chairman: “Session C - RF and Optical Communications” Building 8, Room 301, IEEE - HIT 5th Conference on Electromagnetic Compatibility, EMC-2018, Holon, Israel, May 10, 2018.

35) Session Chairman: “CHAOS Defined and Explored”, 11th Chaotic Modeling and Simulation International Conference (CHAOS2018) 5-8 June 2018, "Sapienza" University of Rome, Italy.

36) Session Chairman: “Session 4: Hysteresis Modelling and Related Issues” XIII Symposium of Magnetic Measurements & Modelling Cracow – Wieliczka, Poland, 8th - 10th October 2018.

37) Workshop Organizing committee member: The Eighteenth Israeli - Russian Bi-National Workshop 2019 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials”. 17 - 22 February 2019, Ein Bokek, Israel.

38) Session Chairman: The Eighteenth Israeli - Russian Bi-National Workshop 2019 “The optimization of composition, structure and properties of metals, oxides, composites, nano and amorphous materials”. 17 - 22 February 2019, Ein Bokek, Israel.

39) Session Chairman: Direct Energy Systems, IEEE- Israel society of Electromagnetic Compatibility (EMC) Conference, May 23, 2019. Sami Shamoon College of Engineering (SCE), Ashdod, Israel.

40) Flows Session Chairman: 12th CHAOS Conference (CHAOS2019), 18-21 June 2019, Chania, Crete, Greece.

41) Co-Chairman Session 4: Magnetic Materials, International Congress on Advanced Materials Sciences and Engineering (AMSE-Japan), July 22-24, 2019 , Osaka, Japan.

42) Chairman Session: Plasma Science (2). 37th Annual Conference of the Israel Vacuum Society, the Israeli Conference on Plasma Science and Applications – IVS-IPSTA 2019. September 3rd, 2019, Sammy Ofer Congress Center, Haifa, Israel.

43) Member of the organizing committee the 19th Israeli-Russian bi-national Workshop. 2020. The Optimization of Composition, Structure and Properties of Metals, Oxides, Composites, Nano- and Amorphous Materials, Yekaterinburg, 05–08 октября 2020 года

44) Chairman of Session 4 - Statistical Physics, Entropy 2021: The Scientific Tool of the 21st Century, 5-7 May 2021, Porto, Portugal (Virtual).

45) Chairman of the Plasma Physics Session, the 67th Annual meeting of the Israel Physical Society (IPS2022), February 22, 2022, Ben-Gurion University of the Negev, Beer Sheba, Israel.

46) Chairman of the Organizing Committee "General Relativity, Quantum Mechanics and Everything in Between, Celebrating 92 Springs of Professor Lawrence Paul Horwitz" April 25-26, 2022, Ariel University, Ariel, Israel.

47) Session Chairman "International School of Mathematics & Workshop Topological Methods in Mathematical Physics" 1-7 September 2022, Erice, Sicily, Italy.

48) Session Chairman "International Conference COSMOLOGY ON SMALL SCALES 2022: Dark Energy and the Local Hubble Expansion Problem", September 21–24, 2022, Institute of Mathematics, Czech Academy of Sciences, Zitna 25, Prague, Czech Republic.

8. ADDITIONAL PROFESSIONAL POSITIONS

1) Senior Physicist: Direx Medical Systems Ltd. (1994- 1995).
2) Magnet Team Leader: Direx Medical Systems Ltd. (1995-1999).
3) Free Electron Laser Project Manager: Tel-Aviv University (1998-1999)
4) Consultant: Direx Medical Systems Ltd. (2000-2001).
5) CEO Flowsim LTD. (2001-2020) www.fluidex-cfd.com
6) Consultant: Initia Ltd. (2002-2003).
7) Consultant: Pegasus Ltd. (2006).
8) Partner TiCARD Technology (2009-).
9) Consultant: Elbit Systems (2009,2014).
10) Partner Thimble Technology (2011-).
11) Consultant: MobileTek Equalize (2010-2011).
12) Consultant: Reinhold Cohn & Partners (RC) Intellectual Property Attorneys (2011).
13) Consultant: Atidron Ltd. (2014).

PUBLIC ACTIVITY

1) Chairman of the Association of the Senior Faculty of Ariel University Center of Samaria 2001-2012. Chairman of the Association of the Senior Faculty of Ariel University 2012-2020.
2) Vice Chairman of the Coordinating Council of Colleges & Academies Unions 2007-2009, Deputy Chairman of the Coordinating Council of Colleges & Academies Unions 2009 - 2013.
3) Chairman of the Research Committee of the Coordinating Council of Colleges & Academies Unions 2007-2014.
4) Member of "Professors for Strong Israel" (PSI). Board member 2020- Chairman November 2020 - 2021.
5) Member of the by laws committee of Ariel University Board of Directors 2022-.

PROFESSIONAL ORGANIZATION MEMBERSHIP

1. Member of the Israeli Physical Society
2. Member of the American Physical Society
3. Member of the Israeli Plasma Society. **President of the Israeli Plasma Society 2013-2017, Vice President of the Israeli Plasma Society 2021, Acting President of the Israeli Plasma Society 2022.**
4. Member of the Israeli Association for Computational Methods in Mechanics – IACMM
5. Member of the American institute for Aerospace & Aeronautics - AIAA
6. Member of the Israel Society for Laser in Medical Sciences
7. Member of IEEE.
8. Member of the Israeli Vacuum Society (IVS). **Board member of IVS 2013-2020.**
9. International Union for Vacuum Science, Technique and Applications, Plasma Science and Techniques Division, **Vice Chair 2016-2019**

RESEARCH INTERESTS

1) Theoretical Physics.
2) Electromagnetics.
3) Fluid Dynamics.
4) Communications.
5) Free Electron Laser, Radiation Sources & Applications.
6) Magneto-Static's, Magnetic Resonance Imaging & Medical Imaging Algorithms.
7) Magnetohydrodynamics.
8) Gravity, General Relativity, Galactic Dynamics, Cosmology, Dark matter & energy problems.

9. ADDITIONAL INFORMATION

Unpublished Works

270) A. Yahalom, "Atmospheric Transparency in the Infra-Red Spectrum", Technion Notes. (Unpublished 1989)

In Preparation

271) R. Englman & A. Yahalom, "Relativistic Collapse of an Electronic Wave Packet".

272) R. Englman & A. Yahalom, "Observability of Phase in a "Which-Way" Arrangement".

Submitted Papers

273) Asher Yahalom & Robert Englman "A toy-model for Born's propensity rules".

274) R. Englman & A. Yahalom, "Component Phases in a Wave Packet Collapse".

275) B. Kapilevich, A. Yahalom, B. Litvak, H. Ezer, "Microwave sensor for on-line measurements of glucose's concentration in sodium-cloride solutions" submitted to EuMW-2008 (http://www.eumweek.com/).

276) S. Kolesnik, Y. Rabinovitz, M. Byalsky, A. Yahalom and A. Kuperman "Assessment of Wind Speed Statistics in Samaria Region".

277) A. Eliran, N. Goldshleger, A. Yahalom & E. Ben-Dor "Modeling of millimeter-wave radiation interaction with topsoil crust and bulk layers"

278) Y. Pinhasi, A. Yahalom, H. Cohen, A. Cahana, Y. Rabinovich, B. Litvak & A. Etinger "Method and Device for Grading Diamonds" US Provisional Patent 62/647567 (23.3.18). PCT/IL2019/050315 WO2019180718A1 published 26.9.19.

Confidential & Applied papers

279) A. Yahalom "Finding the Plane and Scaling of a CT Cross Section Using a Linear Method" Invited Paper for Direx Medical Systems (2001).

280) A. Yahalom "Construction of a Linear Transformation between CT and AccuKnife Coordinate Systems" Invited Paper for Direx Medical Systems (2001).

281) A. Yahalom "Random Study of Registration Software" Invited Paper for Initia Ltd. (2002).

282) A. Yahalom "Fusion of CT and MRI 3 Dimensional Images Using Delineated Points" Invited Paper for Initia Ltd. (2002).

283) A. Yahalom "Automatic Fusion of CT and MRI 3 Dimensional Images" Invited Paper for Initia Ltd. (2003).

284) A. Yahalom "Vestal Primary Analysis" Invited Paper for Pegasus International Ltd. (2006).

285) A. Yahalom "Riser Primary Analysis" Invited Paper for Pegasus International Ltd. (2006).

286) A. Yahalom "Riser Analysis" Invited Paper for Pegasus International Ltd. (2008).

287) A. Yahalom "WIND Primary Analysis" Invited Paper for Pegasus International Ltd. (2008).

288) A. Yahalom "Magnetic Defense" Invited Paper for Elbit Systems Ltd. (2009).

289) Moshe Einat & Asher Yahalom, "The Effect of MobileTek Device on a Mobile Phone Static Magnetic Field" Invited Paper for MobileTek Equalize (2011).

290) Asher Yahalom "On the Advantages of a Multi-Frequency Localization System in a Complex Biological Environment" Invited Paper for Mediguide Ltd. (2011).

291) Miron Tuval & Asher Yahalom "Newton's Third Law in the Framework of Special Relativity" Invited Paper for Tahel 18 Ltd. (2012).

292) Asher Yahalom "A Free Electron Coil" Invited Paper for Free Electron Coils System (2017).

293) Asher Yahalom "A Free Electron Coil With Quantum Effects" Invited Paper for Free Electron Coils System (2022).

Technological Achievements

1) Design of SF permanent magnet for a low field- whole body- MRI.

2) Implementation of novel shimming methods and algorithms, for magnetic field corrections.

3) Installation of MaRex (Direx Medical Systems MRI) in hospitals both in Israel and abroad.

4) Design of a SF strong permanent magnet (2000 Gauss) for extremity only MRI (1999).

5) Design of a SF strong permanent magnet (1500 Gauss) for a full body MRI (2000).

6) Development of a CFD code bases on previous developed variational principle for incompressible flows, the code achieved less than a second solution time for a 100 X 100 Cartesian grid (2001).

7) Development of a CFD code bases on previous developed variational principle for incompressible flows, on a non-structured grid (2001)

8) Developments of codes for allocation of a CT cross-section in space (2001).

9) Development for codes for fusion of a MRI and CT Images (2001).

10) Automatic fusion of a MRI and CT Images without a physician's intervention (2002).

COURSES

Course	Department	Institution	Years
Logic Design	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria Ariel University	1999-2005 2007-2012 2014
Digital Systems	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria Ariel University	2000-2005 2008-2012 2013-
Random Signals and Noise	Electronic Engineering	College of Judea & Samaria Ruppin Academic Center Ariel University Center of Samaria Ariel University	1999-2007 2006 2007-2012 2013-
Electromagnetism	Electronic Engineering	College of Judea & Samaria Ariel University Center of Samaria	2006 2008-2012
Advanced Electronics Laboratory for Physicists	Physics	College of Judea & Samaria Ariel University Center of Samaria	2007 2008-2012
Advanced Mathematics II (A M.Sc. Course)	Electronic Engineering	Ariel University Center of Samaria Ariel University	2007-2012 2014-
Basic Electronics Laboratory 1	Electronic Engineering	Ariel University Center of Samaria	2007-2012
Basic Electronics Laboratory 2	Electronic Engineering	Ariel University Center of Samaria	2008-2012
Quantum Computing (A M.Sc. course)	Electronic Engineering	Ariel University	2021

MSc, PhD & Post-Doc Supervision

1. Mr. Shlomo Peleg “Development of a Multi-Stage Collector” (2002-2005) (MSc)
2. Mr. Zvi Nemas “A model for indoor communications” (2008-2021) (MSc)
3. Dr. Alon Eliran "Application of Millimeter Waves for the Assessment of Soil Salinity" (2008-2017) (PhD)
4. Mr. Erez Yadgar "Design of a THz slot antenna for RADAR applications" (2008-2016) (MSc)
5. Mr. Shay Rozenberg "Analytic model for a THz slot antenna" (2008-2014) (MSc)
6. Mr. Elhanan Shifman "Multi-Layer aspects of indoor communications" (2009-2013) (MSc)
7. Mr. Uri Nissan "Moving Target Speed Calibrator for 6F Multanova Speed Radar (34.3GHz)" (2012-2015) (MSc)
8. Mr. Ofir Plum "Application of Ehrenfest’s Theorem as a Measure for Chaos" (2013-2015) (MSc)
9. Mr. Michael Suleymanov "Covariant relativistic space-time string - the spectrum" (2013-2015) (MSc)
10. Mr. Eyal Magori “Design of a Halbach Wiggler” (2015-2016) (MSc)
11. Mr. Itzhak Chaimov “A Novel Method for Wiggler Shimming” (2015-2018) (MSc)
12. Dr. Joseph Rabinovich “Classifying Diamonds using Electromagnetic Fields” (2017-2022) (PhD)
13. Mr. Moshe Callen (2016-) (PhD)
14. Mr. Moneer Nevoani (2017-) (PhD)

15. Dr. Shailendra Rajput (2017-2020) (Post Doc)
16. Dr. Michal Wagman "Retardation Theory and its Application" (2019-2020) (PhD)
17. Mr. Amir Poznanski (2019-) (MSc)
18. Mr. Haim Rodal (2019-) (PhD)
19. Dr. Prachi Sharma (2020-2022) (Post Doc)
20. Mr. Nathan Shachar (2021-) (PhD)
21. Mr. Magnesh Daspute (2022-) (PhD)