Date (3, 2023)

CURRICULUM VITAE AND LIST OF PUBLICATIONS

Personal Details

Name: Gili Lifshitz Sherzer
Date and place of birth: 17/08/1983 Israel Beer Sheva
Telephone number: +972503273098
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Education

Undergraduate and Graduate Studies

Ph.D. 2014-2018, Ben-Gurion University of the Negev (BGU), Structural Engineering, Prof. Erez Gal and Prof. Guang Ye, Evaluation of meso-scale concrete LDPM mechanical parameters by upscaling the results of micro-mechanical and chemo cement paste models.

M.Sc. 2011-2014, BGU, Structural Engineering, Prof. Erez Gal, Development, Calibration & Validation of Lateral Displacement for Concrete Uniaxial Compression Test.

B.Sc. 2007-2010, BGU, Structural Engineering.

Post-Doctoral Studies

2019-2022, Faculty of Applied Science and Engineering, University of Toronto, Department of Civil and Mineral Engineering, Profs. Giovanni Grasselli and Karl Peterson.

Professional Activities

Significant professional consulting

2018, Professional Committee RILEM CEC Kick, RILEM TC work

Ad-hoc reviewer for journals

Name of journal: 1. Construction and Building Materials

2. Structural Concrete

3. Cement and Concrete Composites

Educational activities

Courses taught in Recent Years

2021-2023, Concrete Structures 1 (as a lecturer), Level 1, Ariel.
2018-2019, Spatial structures (as a lecturer), Level 1, BGU.
2012-2019, Concrete Structures 1, Level 1, BGU.
2012-2019, Concrete Structures 2, Level 1, BGU.
2012-2016, Laboratory for Strength of materials 1, Level 1, BGU.
2012-2016, Laboratory for concrete Structures 2, Level 1, BGU.
2017-2018, Introduction to structural design, Level 1, BGU.
2015,2017-2018, Reviewer students' final project, Level 1, BGU.

Supervision of Research Students

(separated by degree and by year of completion, in descending chronological order)

2023, Yaly Noah, B.Sc., BGU final project /BGU (jointly supervised, Main supervisor Lior Atia).

Ongoing, Moab Maidi, Ph.D. /BGU (jointly supervised, Main supervisor Erez Gal).

Awards, Citations, Honors, Fellowships

Honors, Citation Awards (including during studies)

2013, BGU, Distinguished Student merit scholarship for course protective structures.

Fellowships (e.g. Fullbright)

2019-2021, University of Toronto (Civil & Mineral Engineering), 110,000 ($)− for a faculty position.

2019-2021, Planning and Budgeting Committee Program for Excellence Postdoctoral Fellowships, 66,000 ($)

2019-2021, President scholarship for women, 40,000 ($)

2018, BGU, President scholarship to encourage women finding for the travel of doctoral students abroad as part of the preparations for a post-doctorate, 400 ($)

2018, BGU, support from the Faculty of Engineering Sciences for the travel of doctoral students abroad as part of the preparations for a post-doctorate, 300 ($)

2017, Israeli Ministry of Science and Technology Shulamit Aloni, Foundation for Advancement of Women in Science, up to 67023 ($)

2017, COST ACTION TU1404 STSM, Conference Travel Funding to present my research at. The 4th MC meeting of the COST Action TU1404, which took place in Brussels, Belgium on 12-14 September 2017, in conjunction with the 2nd International RILEM/COST Conference on Early Age Cracking and Serviceability in Cement-based Materials and Structures EAC 02 organized by COST Action TU1404, 1085 ($)

2017, COST ACTION TU1404 STSM (Short Term Scientific Mission) COST ACTION TU1404, Visit of three weeks at TU Delft for scientific collaboration, 2285 ($)

2017, BGU, per month, Kreitman Zin Doctoral Scholarship, 1486 ($)

Scientific Publications

Authored books

Books Chapter

(Conference proceedings, Festschrifte, etc., consecutive numbers).

G. Lifshitz sherzer, and A. Mitelman, 2023, Replicating the failure mechanism of a Real-world Event with the Lattice Discrete Particle Model, The International RILEM Conference on Synergising expertise towards sustainability and robustness of cement-based materials and concrete structures, 15-16 Jun 2023 Adamas (Greece)

H. Abdolpour, P. Niewiadomski, G.L. Sherzer, and Y.F. Alghalandishas, Application of Finite Element Method and Lattice Discrete Particle Modeling for the Novel Ultra High-Performance Self Compacting Mortar Comprised of Recycled Steel Fiber and Equilibrium Catalyst been accepted for presentation for 4th International Conference on Materials Design and Applications 2022 (MDA 2022) conference which will be held at FEUP - Porto (7-8 July 2022).

G.L. Sherzer , Y.F. Alghalandis, P. Zhao, V.Afroughsabet, K. Peterson, G. Grasselli, N. Coutinho, and Shah, 2020, Comparison and Linking Between LDPM and FDEM Modeling for Fracturing in Concrete, 15th Pipeline Technology Conference, Berlin, Germany.

G. Lifshitz Sherzer, K. Kovler, Erik Schlangen, Y. Guang and E. Gal, 2019, Upscaling methodology Implemented for analyzing a wall located at the Dead Sea, 17th EMABM, Toronto, Canada, pp. 252-259.

G. Lifshitz Sherzer, K. Kovler, Erik Schlangen, Guang Ye and E. Gal, 2018, Multiscale Analysis of Concrete Sheet Pile-confined Wall under Brine Attack, SDL4 The 4th International Conference on Service Life Design for Infrastructures CONMOD2018 International Symposium on Concrete Modelling, Delft, Netherlands.

G. Lifshitz Sherzer, E. Schlangen, Y. Guang and E. Gal, 2018, Multi-scale modelling of the mechanics of concrete based on the cement paste properties, Günther Meschke, Bernhard Pichler, and Jan G. Rots, Computational Modelling of Concrete Structures, CRC Press, London, pp. 137-140.

G. Sherzer, Y. Guang and E. Gal, 2017, Upscaling of the Cement Paste Microstructure response to Obtain the Compressive Mechanical LDPM Parameter, The 4th MC meeting of the COST Action TU1404, in conjunction with the 2nd International RILEM/COST Conference on Early Age Cracking and Serviceability in Cement-based Materials and Structures, RILEM Publications S.A.R.L., Brussels, Belgium.

G. Sherzer, Ye G. and E. Gal, Upscaling micro chemical and mechanical models to obtain the LDPM parameters, The 3rd International RILEM Conferences on Microstructure

Related Durability of Cementitious Composites (Microdurebility2016), RILEM Publications S.A.R.L., Nanjing, China.

G. Sherzer, P. Gao, Ye G. and E. Gal, 2016, Evaluation of the LDPM elastic and fracture parameters by up-scaling procedure, M. Azenha, I. Gabrijel, D. Schlicke, T. Kanstad, and O. Mejlhede Jensen, Proceedings of the International RILEM Conference Materials, Systems and Structures in Civil Engineering 2016, RILEM Publications S.A.R.L., Lyngby, Denmark, pp. 789-798.

G. Sherzer, E. Marianchik, R. Cohen, E. Gal, 2015, Development, calibration & validation of lateral displacement for concrete uniaxial compression test, Christian Hellmich, Bernhard Pichler, and Johann Kollegger, CONCREEP 10: Mechanics and Physics of Creep, Shrinkage, and Durability of Concrete and Concrete Structures, ASCE, Published online, pp. 1420-1429.

Articles

Refereed articles and refereed letters in scientific journals, running numbers

A. Mitelman, and G. Lifshitz sherzer, 2023, Coupling Numerical Modeling and Machine-Learning for Back Analysis of Cantilever Retaining Wall Failure, Computers and Concrete.

G. Lifshitz Sherzer, E. Schlangen, Y. Guang and K. Kovler, 2022, The Role of Porosity on Degradation of Concrete Under Severe Internal and External Brine Attack in Confined Conditions, Construction and Building Materials , 341, p.127721. **Corresponding author**

G. Lifshitz Sherzer, Y. Fadakar Alghalandis, K. Peterson and S. Shah, 2022, Comparative study of scale effect in concrete fracturing via Lattice Discrete Particle and Finite Discrete Element Models, Engineering Failure Analysis, p.106062. **Corresponding author**

G. Lifshitz Sherzer, Y. Fadakar Alghalandis, K. Peterson, 2022, Introducing fracturing through aggregates, Engineering Fracture Mechanics. p.108228. **Corresponding author**

G. Sherzer, E. Schlangen, G. Ye and E. Gal. 2020. Evaluating compressive mechanical LDPM parameters based on an upscaled multiscale approach. Construction and Building Materials, 251. **Corresponding author**

G. Lifshitz Sherzer, E. Marianchik, R. Cohen, J. Seidt and E. Gal. 2019. Lateral Displacement Measurement Device for Concrete Specimens Having Non-Cylindrical Cross Section. Journal of Materials in Civil Engineering, 31, 11. **Corresponding author**

G. Sherzer, P. Gao, E. Schlangen, G. Ye and E. Gal. 2017. Upscaling Cement Paste Microstructure to Obtain the Fracture, Shear, and Elastic Concrete Mechanical LDPM Parameters. Materials, 10, 242.

Note that that the impact factor and the journal ranking are appropriate for the date that the paper was published.

Note that my last name in the papers changed from Sherzer to Lifshitz Sherzer

Published scientific reports and technical papers

(internally refereed publications of government research institutions and surveys, industrial research organizations, etc.)

E. Gal and G. Sherzer Lifshitz, 2020, The Lattice Discrete Particle Model (LDPM), Models for Material Scale, Fib.

G. Lifshitz Sherzer, Y. Fadakar Alghalandis, K. Peterson and G. Grasselli, 2020, Simulation of three-point bending of beams with conventional reinforcement and fibers, Working Group WG 2.4.2, University of Toronto.

G. Lifshitz Sherzer, Y. Fadakar Alghalandis, K. Peterson, 2020, Introducing fracturing through aggregates, 2D/3D modeling of concrete weight coating to understand its performance including crack development, Natural Sciences and Engineering Research Council of Canada Collaborative Research and Development Grants, University of Toronto.

Lectures and Presentations at Meetings and Invited Seminars not Followed by Published Proceedings

Invited plenary lectures at conferences/meetings

2020, Smash Project – Smart Meshing Accounting for complexity in the mesh, NSERC/Energi Simulation Industrial Research Chair in Fundamental Rock Physics and Rock Mechanics, University of Toronto, Toronto, Canda.

2020, Smash Project – Smart Meshing Accounting for complexity in the mesh, NSERC/Energi Simulation Industrial Research Chair in Fundamental Rock Physics and Rock Mechanics, University of Toronto, Toronto, Canda.

2019, Upscaling methodology Implemented for analyzing a wall located at the Dead Sea, Composite Cementitious Material, Tel Aviv, Israel.

2018, The LDPM for Analysis of Concrete, Geological Society, Annual Meeting, Israel-Cyprus.

2018, The LDPM for Analysis of Concrete Symposium on RND in Protected Structures, IDF Israel.

2017, The LDPM for Analysis of Concrete, Composite Cementitious Material, Beer-Sheva, Israel.

2016, The LDPM for Analysis of Concrete, Computational Modelling of Concrete Structures, Tel Aviv, Israel.

Presentation of papers at conferences/meetings

Name of all authors, Year, Title of paper/lecture, Name of meeting, Place.
N.B. Give reference to abstracts or proceedings volume.

Presentations at informal international seminars and workshops (do not repeat meetings listed above)

2015, TESTING OF CEMENT BASED MATERIALS, TU 1404 cost action, Belgium.

Seminar presentations at universities and institutions

2021, Civil Engineering, Ariel University, Multiscale, numerical and experimental study on concrete structure

2021, Civil and Environmental Engineering, Ben-Gurion University of the Negev, Multiscale, numerical and experimental study on concrete structure

2019, Civil & Mineral Engineering, University of Toronto, Microstracture to obtain the mechanical parameters of the lattice discrete particle model

2019, Civil and Environmental Engineering, Ben-Gurion University of the Negev, Microstracture to obtain the mechanical parameters of the lattice discrete particle model

2015, Civil Engineering & Geosciences at Delft University of Technology in the Netherlands.