



15th International Conference on Fracture

June 11-16, 2023

Omni Hotel, Atlanta, Georgia USA

Symposium: *Beyond Similitude: Role of Multiscale Heterogeneity on Fracture Prognosis*

Organizers: Ashley Spear (University of Utah, USA), Gustavo Castelluccio (Cranfield University, UK)

Topic areas: This symposium focuses on fracture prediction and modelling approaches for cases in which homogeneity and similitude cannot be assumed. Contributions across scales from atomistic to continuum modelling are welcomed as well as efforts that focus on integrating experimental data into models. We particularly encourage contributions describing the role of:

- Heterogeneous or anisotropic microstructure on ductile or brittle fracture.
- Environment on fracture and the effects of diffusion gradients.
- Stress and strain gradient on crack driving force.
- Dislocation mechanics on the competition between brittle and ductile failure.
- Manufacturing variability on fracture prognosis.

Keynote Speakers



Prof. Leslie Banks-Sills
Tel Aviv University

Prof. Leslie Banks-Sills is a Professor Emerita at Tel Aviv University. She serves on the editorial boards of *Engineering Fracture Mechanics*, *International Journal of Fracture*, *International Journal of Structural Integrity* and *Engineering Failure Analysis*. Among the awards she has received are the Teaching Excellence Award in Mechanical Engineering in 1999, an Honorary Doctorate from Lund University in 2014, a Life-time Achievement Award from EuraSEM in 2018 and the Griffith Medal from ESIS in 2020.

Prof. Reinhard Pippan
Austrian Academy of Sciences



Prof. Reinhard Pippan retired as vice director at the Erich Schmid Institute in 2020 and continued working as a senior scientist focused on understanding the relationships between the mechanical behaviour, deformation, fracture, and the micro- and nano-structure of material. He has authored more than 500 papers, secured three patents, received numerous multimillion dollar grants, and earned awards such as the Wöhler Medal and Tammann Gedenkmünze.

Featured Speakers

- **Prof. Elizabeth Holm**, Carnegie Mellon University, USA
- **Prof. Mark Horstemeyer**, Liberty University, USA
- **Prof. Jaafar El-Awady**, Johns Hopkins University, USA
- **Prof. Pania Newell**, University of Utah, USA

Abstract Submission

Extended abstracts are due **October 1, 2022**. Visit <https://icf15.gatech.edu/> to submit your abstract.