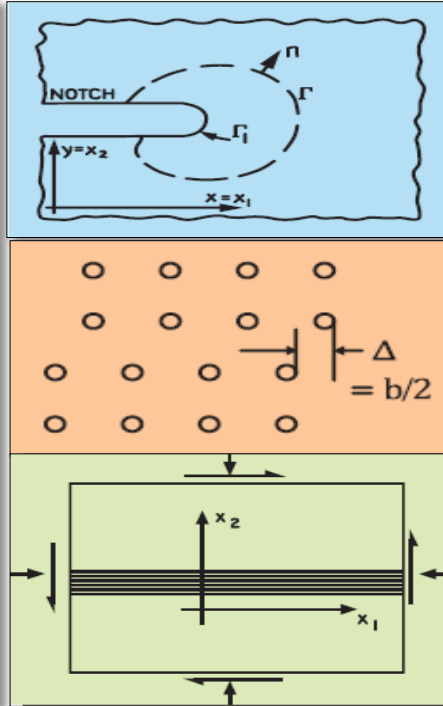
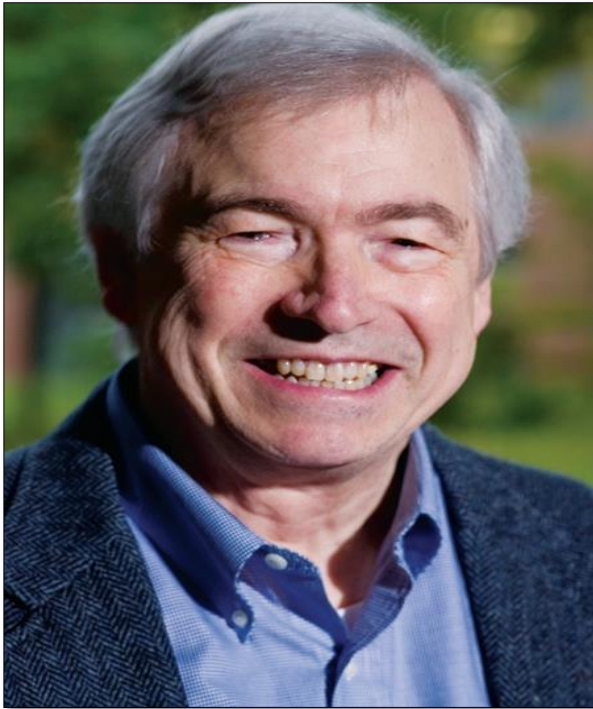


2015 Sigma Xi Monie A. Ferst Award Symposium

Frontiers of Mechanics Research in Materials and Geological Sciences



In honor of

James R. Rice

*Mallinckrodt Professor of
Engineering Sciences and
Geophysics, Department of Earth
and Planetary Sciences and
School of Engineering and
Applied Sciences (SEAS),
Harvard University*

SPEAKERS

Alan Needleman

Texas A & M University

*Crack Paths in Heterogeneous Microstructures
Fracture Mechanics*

David M. Parks

MIT

*Mentoring for Success: James R. Rice and
Origins of Elastic-Plastic Fracture Mechanics*

Robert M. McMeeking

University of California, Santa Barbara

*The Mechanics and Thermodynamics of
Cardiomyocyte Remodeling*

John W. Rudnicki

Northwestern University

Compaction Bands in Porous Sandstones

E. Paul Sorensen

ABAQUS

Some Random Numbers

Andy L. Ruina

Cornell University

Friction, Fracture, Jim Rice and me.

Victor C. Li

University of Michigan

*Development of Self-Healing Cement Based
Composite*

Jwo Pan

University of Michigan

*Fatigue Failures of Welds between Two
Sheets of Similar and Dissimilar Materials*

Sam (Y. L.) Sham

Argonne National Laboratory

*High Temperature Structural Materials
Challenges in Clean Energy Applications*

Huajian Gao

University of Michigan

*Toughening of 2D Materials Through
Topological Design*

Yonggang Huang,

Northwestern University

*Assembly of micro/nanomaterials into complex,
three-dimensional architectures by compressive
buckling*

Sinisa Mesarovi

Washington State University

Lattice Continuum and Diffusional Creep

Yehuda Ben-Zion

University of Southern California

*Superiority of Physics-Specific Results on
Earthquake Behavior Compared to Generic
Universal Predictions*

Nadia Lapusta

California Institute of Technology

Mechanics of the Earthquake Source

Yajing Liu

McGill University

*Spatiotemporal Evolution of Slow Slip
Events in a Non-planar Cascadia Subduction
Fault Model*

Eric M. Dunham

Stanford University

*Seismic and Acoustic Waves from Volcanic
Eruptions*

Robert C. Viesca,

Tufts University

Skipping Between Slipping and Dripping

John D. Platt

Carnegie Institution for Science

*The Role of Gouge and Temperature on Flash
Heating and its Hysteresis*

SATURDAY, DECEMBER 5, 2015 AT 9AM
AT THE GEORGIA TECH HOTEL AND CONFERENCE CENTER,
800 SPRING STREET NW , ATLANTA, GEORGIA 30308
INFORMATION AND **RSVP**: SIGMA XI, SIGMAXI@ME.GATECH.EDU,
WEBSITE: [HTTP://SIGMAXI.GATECH.EDU](http://SIGMAXI.GATECH.EDU)