

Symposium in honor of the 80th birthday of Professor James R. Rice
 Mechanics of Deformation, Fracture, and Flow: from Nano to Terra
 June 7-8 and June 10-12, 2021, 10 am-12 pm EDT (Cambridge MA local time)

Monday, June 7, 2021
Session Chairs: Nadia Lapusta and John Shaw

9:45	<i>Pre-session time: Joining the symposium</i>	
10:00	Nadia Lapusta	Welcome and introduction
	John Shaw	Greetings from the Earth and Planetary Department at Harvard
	Frank Doyle	Greetings from the School of Engineering and Applied Science at Harvard
10:15	John Rudnicki	Under the influence
10:30	Victor C. Li	From J-integral to infrastructure and climate change
10:45	Huajian Gao	Testing Griffith's theory of fracture in 2D materials
11:00	<i>Break: break-out rooms, informal meet-and-greet</i>	
11:10	Harsha S. Bhat	Slip instabilities across spatiotemporal scales
11:25	Yajing Liu	Earthquake rupture barrier and possible slow slip on East Pacific Rise transform faults
	<i>Lightning talks on promising current and future directions</i>	
11:40	Zdenek P. Bazant	Scaling law of HRR theory of plastic-hardening metals based on the gap test
11:45	Greg Beroza	TBA
11:50	<i>Discussion</i>	

Tuesday, June 8, 2021
Session Chairs: TBD

9:45	<i>Pre-session time: Joining the symposium</i>	
10:00	Ares J. Rosakis	How knowing Jim Rice influenced my academic tastes
10:15	Robert M. McMeeking	Storage particle cracking, solid electrolyte surface roughening and solid-state dendrite formation in lithium ion batteries
10:30	Leslie Banks-Sills	Comparison of Mode I fatigue delamination propagation in two laminate composites
10:45	Terry E. Tullis	Evolution of frictional state is dominated by changes in contact strength, not changes in contact area
11:00	<i>Break: break-out rooms, informal meet-and-greet</i>	
11:15	Victor C. Tsai	High-frequency earthquake ground motion from structural impacts in complex fault zones
	<i>Lightning talks on promising current and future directions</i>	
11:30	Kyung-Suk Kim	Deformation and failure mechanisms of multiphase random nanostructures
11:35	Martine Ben Amar	TBA
11:40	Robert Viesca	Coupling friction and fracture during geologic fault rupture
11:45	<i>Discussion</i>	

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Thursday, June 10, 2021

Session Chairs: TBD

9:45	<i>Pre-session time: Joining the symposium</i>	
10:00	Paul Segall	Repeating caldera collapse events constrain fault friction at the kilometer scale
10:15	Zhigang Suo	From interface fracture to adhesion
10:30	Aleksandar Sedmak, Ružica Nikolić	J integral as a conservation law and its application for welded joints
10:45	Hiroyuki Noda	Dynamic earthquake sequence simulation with a spectral boundary integral equation method without periodic boundaries
11:00	<i>Break: Break-out rooms, informal meet-and-greet</i>	
11:15	Yonggang Huang	Modeling programmable drug delivery in bioelectronics with electrochemical actuation
	<i>Lightning talks on promising current and future directions</i>	
11:30	Jay Fineberg	How friction starts: Nucleation fronts initiate friction motion
11:35	Jean-Baptiste Leblond	Recent advances and open problems in mixed-mode (I+III) propagation of cracks in brittle materials
11:40	Xanthippi Markenscoff	Deep-focus earthquakes: the strange mechanics of dynamic phase transformations under high pressures
11:45	<i>Discussion</i>	

Friday, June 11, 2021

Session Chairs: TBD

9:45	<i>Pre-session time: Joining the symposium</i>	
10:00	Alan Needleman	Limits on Eshelby Transformation Strain set by Non-negative Dissipation and Dissipation Rate
10:15	Philippe H. Geubelle	Intersonic Bursts of Dynamic Mode I Planar Cracks
10:30	Yehuda Ben-Zion	Localization of seismicity prior to large crustal earthquakes
10:45	Allisar Yehya	Influence of Fluid-Assisted Healing on Fault Permeability Structure
11:00	<i>Break: Break-out rooms, informal meet-and-greet</i>	
11:15	Colin R. Meyer	Thermal controls on ice stream shear margins
	<i>Lightning talks on promising current and future directions</i>	
11:30	Jeffrey Kysar	TBA
11:35	Chen Gu	Deciphering time series signal from labquakes to building shakings
11:40	Nadia Lapusta	Are mature faults dynamically or chronically weak?
11:45	<i>Discussion</i>	

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Saturday, June 12, 2021

Session Chairs: TBD

9:45	<i>Pre-session time: Joining the symposium</i>	
10:00	John Hutchinson	Remarks and Greetings to Jim and Renata
	Rod Clifton	
	Paul Sorensen	
	Emile Okal	
	Davide Bigoni	
	Judi Chester	
	Harsha Bhat	
	Eric Dunham	
10:40	<i>Pre-recorded videos</i>	
11:00	<i>Break: Break-out rooms, informal meet-and-greet</i>	
11:15	<i>Photo slide show</i>	
11:30	<i>Closing ceremony</i>	
11:45	Concluding remarks by Jim Rice	