

EML WEBINAR

ZOOM DISCUSSION: 271 079 684

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WEDNESDAY, 16 DECEMBER 2020

9:30 AM BOSTON, 2:30 PM LONDON

3:30 PM PARIS, 10:30 PM BEIJING



DAVID WEITZ

HARVARD UNIVERSITY

SNAP, SPECKLE AND SPOT: SIGHT AND SOUND OF HYDRAULIC FRACTURE

‘Snap, crackle and pop’ is one of the top 20 slogans of all time. First used in nearly 90 years ago, it describes the sound of milk being imbibed into Rice Krispy breakfast cereal. This talk will describe a related phenomenon, the sound of fracture induced by injected fluid. The acoustic measurements are complemented by high-speed optical visualization and new light scattering techniques to probe the strain field, the fluid flow, and the crack propagation. These measurements provide new ways of investigating the extreme mechanics of fracture induced by hydraulic forces.

David Weitz is the Mallinckrodt Professor of Physics and Applied Physics at Harvard University. Weitz received his Ph.D. in physics from Harvard University and then joined Exxon Research and Engineering Company, where he worked for nearly 18 years. He then became a professor of physics at the University of Pennsylvania and moved to Harvard at the end of the last millennium as a professor of physics and applied physics. He leads a group studying soft matter science with a focus on materials science, biophysics, microfluidics, and flow in porous media. Several startup companies have come from his lab to commercialize research concepts.

Discussion leader: **Professor Jia Liu**, Harvard University.

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