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Please Join Us as

Dr. Zhigang Suo presents

Soft Active Materials

Presentation Co-Sponsored with

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Abstract: Soft materials can be made *active* in that they can greatly change shape and volume in response to diverse stimuli. For example, an elastomer may strain more than 100% under an electric field. As another example, in response to a change in pH, a gel may imbibe solvent molecules to swell many times its initial volume. These soft active materials have broad applications in drug delivery, tissue engineering, microfluidics, and the oil industry. The presentation will describe the basic theories and several specific phenomena, especially in regard to large deformation and instability. Specific questions addressed will include “How do stress, electric field, and chemical potential interplay to cause large deformation? Why do abrupt changes, or instabilities, occur?”

Zhigang Suo, the Allen E. and Marilyn M. Puckett Professor of Mechanics and Materials at the School of Engineering and Applied Sciences at Harvard University, is reknowned for his work in the mechanics of materials and structures. He serves as the Associate Editor for the International Journal of Solids and Structures and for the ASME Journal of Applied Mechanics. He is a recipient of numerous teaching and research awards including the Eric Reissner Medal as part of the International Conference on Computation Engineering and Science, Fellow of the American Society of Mechanical Engineers, and membership in the National Academy of Engineering.



Monday, April 6, 2009 11:00 AM – 12:00 PM
McArthur Engineering Annex – Room MEA202
Coral Gables

Light Refreshments will be provided

*For more information, please contact Anne
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