ENGINEERING SCIENCES & APPLIED MATH--FEATURED SPEAKER



Organization and self-assembly far from equilibrium: Dissipation induced transitions in membranes and materials

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M416 (ESAM Conference Room), Tech

Non-equilibrium thermodynamics provides a useful set of tools to analyze and constrain the behavior of far from equilibrium systems. However, these tools have not yet been broadly applied to aid in the control of many body systems and materials assembled far from equilibrium. In this talk, I will report an application of ideas from non-equilibrium thermodynamics to the problems related to morphological changes in membranes, self assembly and more broadly control of material properties far from equilibrium. In many of these contexts, I will show how the material properties can be substantially constrained (and even predicted) using tools from non-equilibrium thermodynamics.