

# PHYSICAL MATHEMATICS SEMINAR

## Not so fast: The role of confinement in elastic instability

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### **ABSTRACT:**

Elastic instability is increasingly viewed as something to be tamed, rather than feared: the regular patterns formed by wrinkles in thin sheets are of use in a number of applications including photonics, while the rapid motion associated with instability has a variety of applications in the natural and man-made world. I will first discuss how confinement affects the static properties of wrinkle patterns, before going on to discuss how the dynamics of instability can modify this picture. Finally, I will discuss the dynamics of snap-through instabilities (such as the Venus flytrap and children's hopper popper); this dynamics is very sensitive to the amount of confinement, giving a new tool with which to tune the instability

**TUESDAY, SEPTEMBER 27, 2016**

**2:30 PM**

**Building 4, Room 257**

*Reception following in Building 2, Room 290  
(Math Dept. Common Room)*

<http://math.mit.edu/seminars/pms/>