



# FRIENDS OF THE KITP

## KAVLI INSTITUTE FOR THEORETICAL PHYSICS

### Chalk Talk

# Fragile Objects: The Hard Science of Soft Matter

The natural and synthetic world has an extremely rich variety of states of matter. Many of these are fragile structures that are both flexible and complex and they range from atomic in scale to the very large. We call it Soft Matter. Professor Bowick will present four vignettes from the world of fragile objects that illustrate their counter-intuitive behavior and the intellectual challenge they present to basic curiosity-driven research, as well as to materials science. He will demonstrate how the concept “state of matter” is often not as simple as one might think and show how the response of soft matter to heat can be rather surprising.

Thursday, September 28, 2017  
Kohn Hall, UCSB  
5:30 Courtyard Reception  
6:15 - 7:15 Presentation and Discussion

#### Attendance by Reservation Only

RSVP by Monday, September 25:

Online: <https://www.kitp.ucsb.edu/chalk-talk-rsvp>

Phone: (805) 893-6307 or [friends@kitp.ucsb.edu](mailto:friends@kitp.ucsb.edu)

#### Lot 10 parking

As you enter campus from Hwy 217, turn right onto Mesa Rd, merge into the left lane, and at the stop light turn left into Parking Structure 10. Park, buy a permit from the dispenser (near the elevator and stairs), and display the permit on your dashboard. The KITP is right next door to the parking structure.



Sonia Fernandez, UCSB Office of Public Affairs & Communications

### Mark Bowick

Deputy Director  
KITP

**Mark Bowick** is a Visiting Scientist and Deputy Director at the KITP and the Joel Dorman Steele Professor of Physics at Syracuse University. He grew up in New Zealand and received his PhD in Elementary Particle Theory from Caltech, followed by postdoctoral research appointments at Yale and MIT. He is a Fellow of the American Physical Society, a recipient of the DOE Outstanding Junior Investigator Award, the William Wasserstrom Prize for Excellence in Graduate Teaching and Advising, and first prize award in the 1986 Gravity Research Foundation Essay Competition. He is a theorist working on a wide variety of problems in soft condensed matter physics with focus on the use of geometry, topology, and symmetry to predict or explain physical phenomena.