



Physics Colloquium
Professor Christopher Jarzynski
(University of Maryland)
“Scaling Down the Laws of Thermodynamics”
Friday, April 26, 2019
2:30pm—3:30pm
210 Robeson Hall

Thermodynamics provides a robust conceptual framework and set of laws that govern the exchange of energy and matter. Although these laws were originally articulated for macroscopic objects, it is hard to deny that nanoscale systems also exhibit “thermodynamic--like” behavior – for instance, biomolecular motors convert chemical fuel into mechanical work. To what extent can the laws of thermodynamics be “scaled down” to apply to individual microscopic systems, and what new features emerge at the nanoscale? I will describe some of the recent progress and challenges associated with addressing these questions.

