

National Resource for Biomedical Supercomputing



2010 NRBSC WORKSHOPS

"Hands-On" Workshop on Computational Biophysics using NAMD and VMD

May 10-14, 2010

Registration is now closed for this workshop.

Applicants notified: March 22, 2010

This workshop will be presented by members of the Theoretical and Computational Biophysics Group (www.ks.uiuc.edu) at the University of Illinois at Urbana-Champaign and will explore a wide range of physical models and computational approaches for the simulation of biological systems.

Workshop material will be based on case studies including the properties of membranes and membrane proteins, the mechanism of molecular motors, and trafficking in the living cell through water and ion channels, as well as signaling pathways. Required physical concepts, mathematical techniques, and computational methods will be introduced, including force fields and algorithms used in molecular modeling, molecular dynamics simulations on parallel computers, and steered molecular dynamics simulations.

The workshop is designed for graduate students and postdoctoral researchers in computational and/or biophysical fields who seek to extend their research skills and expertise, as well as other researchers interested in theoretical and computational biophysics. Theory sessions (mornings) will be accompanied by hands-on computer labs (afternoons) in which students will be able to set up and run simulations.

Registration will be free of charge for attendees from non-profit academic institutions, and, in addition, the National Resource for Biomedical Supercomputing will cover housing costs. Academic participants are, however, required to cover their own travel expenses.

Due to space constraints, the workshop will be limited to 25 participants. Contact Christal Banks, NRBSC Administrator, at cbanks@psc.edu.

[Agenda](#)

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