

WHAT CAN MINIMAL MODELS TEACH US ABOUT MOLECULAR MOTORS?

Abstract: Living cells include a plethora of molecular motors that perform a variety of vital tasks such as muscle contraction, cellular transport, or protein assembly. While the details of their operating cycles may vary, the behavior of these motors is based on many common principles. In this talk, I will present our research into a specific molecular motor, myosin VI. Myosin VI is a processive motor that transports intracellular cargo using a coordinated ATP driven cycle that is not dissimilar from the mechano-chemical cycles of other molecular motors. We have been developing computational models to understand myosin VI operation and explore how its motion is related to environmental conditions and its mechanical properties. Our work helps us to study myosin VI as well as build a framework towards understanding molecular motors in general.



RIINA TEHVER

Associate Professor, Chair of Physics & Astronomy
Denison University

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Hayes Hall 211/213

Lunch will be served between 11:50 and 12:10.

Kenyon College - Department of Physics

