Class Schedule - Fall 2010

Physics

PHYS 554  **Nonequilibrium Stat Mechanics**  credit: 4 hours.
Introduction to the mathematical description of classical and quantum stochastic systems, thoroughly addressing the tools and the
mode of thinking of non-equilibrium statistical mechanics. Review of equilibrium statistical mechanics; Einstein and Smoluchowski
diffusion equation; generalized moment expansion of correlation functions; noise-induced limit cycles; time series analysis; diffusion-
controlled reactions; classical dynamics under the influence of stochastic forces; observables connected with brownian transport,
echoes, and hysteresis; spin-boson model. Examples from biological physics and theoretical condensed matter physics. Prerequisite:
PHYS 504.

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<th>CRN</th>
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<tr>
<td>54275</td>
<td>Lecture</td>
<td>A</td>
<td>09:00 AM - 10:20 AM</td>
<td>MW</td>
<td>158 - Loomis Laboratory</td>
<td>Schulten, K</td>
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