SPECIAL PHYSICAL MATHEMATICS SEMINAR

IONIC ELECTRODIFFUSION THROUGH PROTEIN CHANNELS: ATOMIC DETAILS AND CONTINUUM DESCRIPTIONS

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ABSTRACT:

Ionic Diffusion through protein channels is a problem of considerable physiological importance. Due to the atomic dimensions of the channel standard continuum approaches have obvious limitations. In this talk we show how to incorporate (some) atomic details into a continuum description of permeation and analyze the importance of the resulting terms. The theory, based on exact averaging of a molecular model of diffusing particles is a generalization of equilibrium statistical mechanics to non-equilibrium.

FRIDAY OCTOBER 21, 2005
1:00 PM
Building 2 Room 255

Refreshments at 2:15 in Building 2, Room 349.