



Innsbruck Physics Colloquium

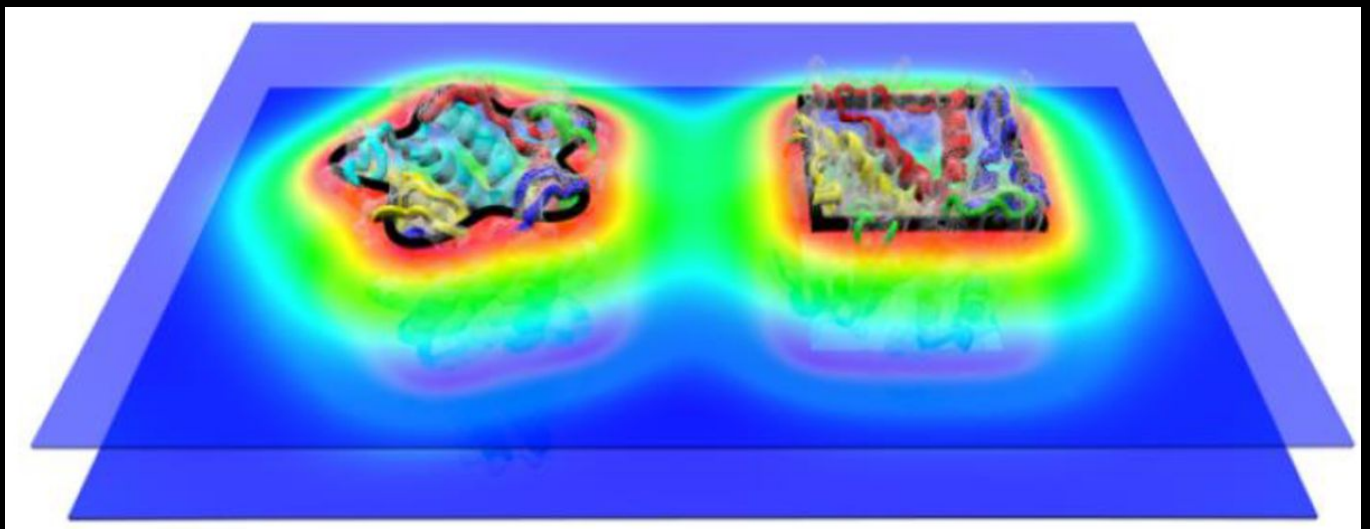
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Collective phenomena in cell membranes

Cell membranes are one of the fundamental hallmarks of life. Following seminal breakthroughs in structural biology and cell microscopy, it is now widely appreciated that many of the key aspects of membrane function cannot be understood by considering isolated membrane proteins but, instead, emerge from the collective properties of protein structure, interactions between proteins and the surrounding lipid bilayer, membrane shape, and the supramolecular organization of membrane proteins into lattices of interacting proteins. Using specific biological model systems as case studies, we illustrate here how experimental data on the structure, organization, shape, and collective function of cell membranes can be integrated into simple mathematical models that allow, starting from key molecular properties of proteins and lipids, a physical understanding of cell membranes across length and time scales.



Tuesday, 12.12.2017, at 17:15 in lecture hall C

Innsbruck Physics Colloquium, Organisation: M. Beyer, H.-C. Nägerl, A. Reimer