Theoretisch-Physikalisches Kolloquium

UNIVERSITÄT DES SAARLANDES

Theoretische Physik

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”Structure Formation in Biomembrane Mimetics”

The organization of biological membranes is driven by the intricate interplay of lipids and proteins. In numerous cases it enables and regulates membrane protein function, either by direct interaction e.g. by binding of specific lipids to active sites, or indirectly by shaping a compatible membrane environment, e.g. by the formation of nanodomains of specific composition and structural characteristics. In this talk I'll discuss how molecular dynamics simulations on different scales can be employed to study protein-lipid interactions in e.g. oligomerization or spontanous membrane curvature.

In addition to their biological function, membranes are as well the main interaction site for drugs. I will show that the toxicity of antimicrobial peptides is tightly coupled to peptide-lipid interactions. The latter are used the setup an improved membrane-interface hydrophobicity scale.

Donnerstag, den 11.05.2017
um 10 Uhr s.t.

Gebäude E 2 6, Seminarraum E. 04

Interessenten sind herzlich eingeladen

Der Gast wird betreut von Herrn Prof. Santen

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