



TECHNISCHE UNIVERSITÄT
CHEMNITZ

Institut für Physik Physikalisches Kolloquium



Mittwoch, 04.05.2016, um 16:00 Uhr

Ort: Reichenhainer Str. 90;

Zentrales Hörsaal- und Seminargebäude, Raum 2/N013

Prof. Dr. Friederike Schmid

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Institut für Physik

The heterogeneous structure of lipid biomembranes

Biological membranes are central components of all living organisms, which play an essential role in organizing and compartmentalizing tissues and cells. From a physical point of view, they are fascinating objects, since they self-assemble spontaneously from amphiphilic molecules (mostly lipids) and form elastic two dimensional sheets. The properties of biomembranes are to a large extent determined by physical principles.

After a general introduction, I will focus on the lateral microstructure of biomembranes. Nowadays, membranes are believed to be laterally heterogeneous and filled with nanoscale ordered "raft" domains. However, the mechanisms stabilizing such small rafts are still under debate. I report on the observation of raft-like structures of sizes in the order of 10 nm in coarse-grained molecular simulations of multicomponent lipid bilayers and discuss a generic mechanism that can stabilize these and other experimentally observed nanoscale structures in membranes.

Alle Zuhörer sind ab 15:45 zu Kaffee und Tee vor dem Hörsaal eingeladen.



Informationen zum Vortrag erteilt:
Prof. Dr. Michael Schreiber, Tel. 0371 531-21910

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