PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 18.01.2017, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1

Prof. Dr. Matthias Weiss

Experimental Physics I, University of Bayreuth

"Dynamic self-organization of living matter – from molecules to embryos"

Understanding living entities, from single cells to whole organisms, eventually requires knowledge about the physics that governs the secret life of biological specimen. On the nanoscale, macromolecules need to travel and interact such that mesoscopic structures, e.g. organelles, and patterns are formed and maintained. On even larger scales, cells need to arrange in a spatiotemporally coordinated fashion to enable, for example, proper embryogenesis. Focusing on experiments, the talk will touch upon recent results on causes and consequences of anomalous and anisotropic transport of macromolecules in biological fluids , and on the influence of mechanical cues that guide the early embryonal development of the model organisms Caenorhabditis elegans .

Die Dozenten der Physik

local host: Prof. Dr. Jens Bredenbeck, bredenbeck@biophysik.uni-frankfurt.de