

Thomas Weikl, IGRTG 1524 Colloquium 15.06.2011

Domain formation and adhesion of biomembranes

Biomembranes are composed of lipids and proteins, which both can form domains. Since the membranes are rather flexible, the formation as well as the shapes of these domains are affected by the membrane elasticity. In my talk, I will discuss the patterns of lipid domains that arise from membrane bending, and the mechanisms that lead to the formation of protein domains. An intriguing example are the protein domains formed during immune cell adhesion. The formation of these domains is driven by a length mismatch of adhesion proteins, which leads to rather strong membrane-mediated interactions between the proteins.