Observing and understanding membrane interactions

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We are developing observation techniques to study membranes close to a surface with very high space and time resolution. The experimental results obtained using these techniques, on membrane fluctuations, and dynamics of membrane adhesion driven by generic and specific interactions, will be presented. In addition to exploring how to measure and manipulate the surface interaction potential, we have identified new players, like jamming, as important in driving or restricting adhesion. I will interpret these results in terms of a unified conceptual framework for understanding membrane adhesion under different conditions.