Beitrag ID: **10** Typ: **Talk**

# Dynamics of liquid droplets on switchable substrates –from microscopic to mesoscopic models

*Dienstag, 9. November 2021 11:50 (25 Minuten)*

In this talk we will theoretically investigate the dynamical properties of a simple liquid on a switchable substrate. To understand the non-equilibrium relaxation dynamics of a liquid droplet on a switchable substrate we study the interplay of different length- and time-scales. We present a method to map the microscopic information, resulting from a molecular dynamics simulation, to a mesoscopic scale, reflected by a thin film model. We analyze the relaxation of a liquid droplet after switching the wettability of the substrate and discuss the cases of the slow and fast periodic switching. Surprisingly, we observe different mapping regimes, depending on the direction of the switching.

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