Conference "Dynamic Wetting of Flexible, Adaptive, and Switchable Substrates"



Beitrag ID: 49 Typ: Talk

Drop impact on very thin liquid films ontop hard solid substrates

Montag, 8. November 2021 15:00 (20 Minuten)

Drop impact on solid substrates under normal lab conditions typically suffers from effects of substrate inhomogeneities on, e.g., the evolution of interstitial gas films and contact formation. Some recent experiments thus employ micrometer-thin oil films as surficial layers on a hard substrate, but the effect of the film on a droplet's spreading and receding dynamics is typically neglected. However, even few micrometers thin films of viscous fluids do deform. The film's properties influence both contact formation and the receding dynamics of the drop. Actual deformation heights depend on film thickness as well as film properties. The influence of thicker films, or very shallow liquid pools, has become a field of recent interest in the literature. The presentation will address general aspects of droplet dynamics depending on properties of thin spin-coated oil films.

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Sitzung Einordnung: Short talks