

GRK 2516 Soft Matter Seminar

June 9, 2022 at 3:30 p.m.
Minkowski Room, 05-119, Staudingerweg 7

Research seminar of the DFG Research Training Group GRK 2516 (<https://grk2516.uni-mainz.de>).

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Cloaking transition of droplets on lubricated brushes

We present the results of molecular dynamics simulations of liquid droplets on polymer brushes infused with lubricant. As the amount of lubricant is increased, the system undergoes a transition where the droplet goes from uncloaked to cloaked, i.e. gets fully covered with lubricant. We quantify the cloak thickness, present a theoretical explanation of the phenomenon, and measure the effect of cloaking on contact angles and the wetting ridge.