

MPIDS Colloquium



MAX-PLANCK-GESELLSCHAFT

Droplet aggregates as model systems for connecting granular systems to continuum mechanics: how few is too few?

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In recent years we have developed a method to produce microscopic monodisperse oil droplets in an aqueous environment. With an attractive interaction between the droplets, monodisperse droplets form perfect crystalline aggregates, while a blend of small and large droplets allows us to prepare a disordered glass. By carefully tuning the adhesion forces between the droplets, the aggregates provide model systems for studying various physical phenomena that are not accessible by investigating molecular systems. Here I will provide a brief overview of experiments we have carried out to address two fundamental questions. How does a system transition from crystal to glass, when blending large and small droplets? And secondly, how does a system transition from a few particles, to many particles, where continuum models are valid. These experiments enable us to study the transition from few-to-many, and from crystal-to-glass.

Wednesday, July 29th, 2020 at 2:15 pm

MPIDS, video conference at www.zoom.us

Meeting ID: 938 1478 5501

Password: 482616, [direct link](#)



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