

## **Colloidal Particles in Thin Liquid Films**

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Solid colloidal particles can spontaneously attach to air-water or oil-water interfaces and act as an effective stabiliser of foams and emulsions even in the absence of any surfactant. The thinning and stability of the liquid films separating the bubbles or droplets are crucial for the overall stability of foams and emulsions. They are strongly affected by the presence of particles in the films. To understand better the role of solid particles in such systems we investigate the behaviour of micrometer and submicrometer solid particles in free standing liquid films. The films are observed in monochromatic reflected light and the thickness profile of the film meniscus is reconstructed from the interference pattern. It is used to determine the three-phase particle contact angle at the liquid interface in real time without the need of sophisticated equipment or complex calculations.