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### **The Mechanics of Capillary Assemblies**

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Capillary interactions are key in many natural systems at the millimeter scale: from the cohesion of a sand castle to the capillary adhesion mechanism observed in some beetles on substrates. The self-assembly of objects via such capillary interactions is a well-known phenomenon. At the colloidal scale for example particles can distort the region around the liquid it is attached to and lead to particle-particle interaction at the interface. At the millimeter scale, it can lead to the formation of so-called liquid marbles where liquid is encapsulated into a shell of particles. Yet, a complete description of the mechanical characteristics of how such objects behave collectively is still lacking. By coupling this capillary interaction with a second force such as gravity or elasticity, we can investigate the mechanics of capillary assemblies such as granular rafts or wet fibrous material. I will illustrate this topic with examples from recent advances in the lab. To conclude, we will discuss the potential outcomes of these studies.