*Long-time coarsening of bimodal colloidal gels studied in microgravity.*

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The effect of depletion on colloid-polymer mixtures is an area of continual interest and particularly studied for well-defined systems - for example, systems of monodisperse hard spheres. However, industrial problems (for example product stability) cannot be readily understood by extrapolations from systems of monodisperse spheres as commercial systems often contain a wide range of different size colloids. This talk will explore the effect of depletion in a range of colloidal mixtures containing big and small colloids, which show behaviors ranging from phase separation to gelation. These observations are possible due to the wonders of microgravity aboard the International Space Station, which allow for long-term coarsening of structures uninhibited by sedimentation.