



UNIVERSITÀ DI PARMA

Dipartimento di Scienze Matematiche, Fisiche ed Informatiche - DSMFI

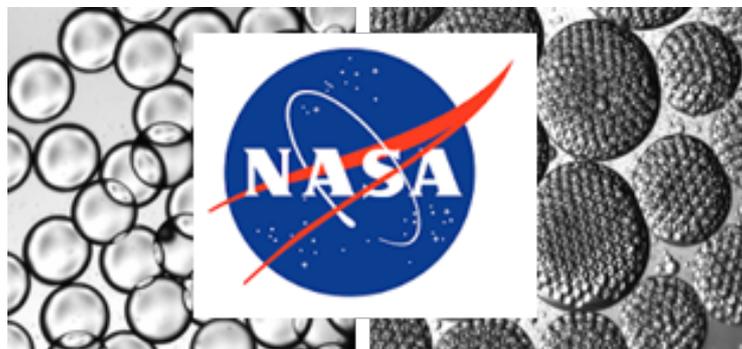
SEMINARIO DI DIPARTIMENTO

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Droplet Interfaces and Emulsion Dynamics in Microgravity

Abstract: Emulsions are liquid-in-liquid dispersions of technological importance in diverse fields of application including foods, pharmaceuticals, and cosmetics. Simple emulsions ($100\text{nm} < a < 1\mu\text{m}$) are comprised of liquid droplets dispersed in a liquid. Emulsions are thermodynamically unstable, so kinetic stabilization requires emulsifiers, such as surfactants, polymers, and nanoparticles. Although a general understanding of the role of emulsifiers in the kinetic stabilization has been developed during the last three decades, many details remain unclear. Hence, the formulation of stable dispersions largely relies on an empirical approach. We discuss ground-based measurements for emulsion formulations and underscore the importance microgravity in deconvoluting thermophysical processes related to emulsion stability.



Giovedì 11 aprile 2019 – ore 16:30
Aula Newton – Plesso Fisico