

“Inertial Lubrication Theory”

Dr. Nicolás Rojas Simpfendörfer

Université de Nice Sophia-Antipolis. Nice, France

Thin films can have surprising behavior depending on the boundary conditions enforced, the energy input and the specific Reynolds number of the fluid motion. Here we study the equations of motion for a thin fluid film with a free boundary and its other interface in contact with a solid wall. Although shear dissipation increases for thinner layers and the motion can generally be described in the limit as viscous, inertial modes can always be excited for a sufficiently high input of energy. We derive the minimal set of equations containing inertial effects in this strongly dissipative regime.

MARTES 19 JULIO, 13:00 HRS.

**Sala de Conferencias, Tercer Piso, Departamento de Física
Universidad de Santiago de Chile**

