

LadHyX Seminar – March 20th, 10:45

Henri Lhuissier
(IUSTI, Aix Marseille Université)

How liquids of unequal viscosity mix?

How fast does a honey drop mix in an agitated water glass? How do rocks of different composition fuse on geologic timescales in the earth mantle creeping flow? These questions amount to asking how and how fast miscible liquids with different viscosities are homogenized by stirring and diffusion. The general problem is complex, but I will show that a simple and somehow counter-intuitive physical picture can be obtained for an initially localized heterogeneity when there is no inertia.

Collaborators: I. Castaldi and B. Metzger.

