

Sliding dynamics: the physical and mechanical viewpoints on friction

Autumn school
19-24 November 2006
Valpré (France)

Lectures :

Adhesion

→ Fracture/adhesive rupture: dynamics, inelastic response and lengthscale

H. Hui, Cornell Un., Ithaca, USA

Solid friction

→ AFM as a tool for friction measurements

E. Meyer, Institute of Physics, Basel, Switzerland

→ Lengthscales and confinement in indentation and scratch

J.L. Loubet, LTDS, Lyon/C. Gauthier, ICS, Strasbourg

→ Macroscopic friction

T. Baumberger, INSP, Paris

Lubrication

→ Structure and dynamics of simple confined fluids

To be announced

→ Physics of the friction of polymer molecular films and interfaces
brushes, elastomers

L. Léger, LPS, Orsay

→ Structure and dynamics of polymer thin films

G. Reiter, ICSI, Mulhouse

→ Macroscopic scale : hydrodynamic and boundary lubrication

D. Mazuyer, LTDS, Lyon

→ The lengthscale problem : hydrodynamics and slip length

C. Barentin/C. Ybert, LPMTN, Lyon