Formation and structure of singularities
January Monday 21st-Friday 25th 2008

Program

The workshop will stand at the Amphitheatre Hermite, Henri Poincaré Institute, 11 rue Pierre et Marie Curie, Paris 05. The four long lectures are shown in blue.

Monday January 21st

13h30h-14h15 : Welcome

14h15-15h : John Bush (MIT, Boston) "Singularities galore : On viscous sheet retraction and the impact of hydrophobic bodies."

15h-15h45 : Hamid Kellay (CPMOH, Bordeaux), "Some experiments displaying singular behavior : thinning, break-up, coalescence, and line undulations"

15h45-16h15 : Coffee Break.

16h15-17h : Laurent Limat (MSC, Paris) "Sliding drops"

Tuesday January 22nd

9h-10h30 : Jay Fineberg (Hebrew University, Jerusalem), "1) The dynamics of rapid fracture."

10h30-11h : Coffee Break.

11h-12h30 : Miguel Escobedo (Universidad del Pas Vasco, Spain), "1) Singular solutions for the Uehling Uhlenbeck equation : The linearised problem."

12h30-14h15 : Lunch

14h15-15h : Evariste Sanchez-Palensia (IJLRA, Paris) "Examples of propagating and non-propagating singularities in thin shell theory"

15h-15h30 : Clement Mouhot (CEREMADE, Paris) "Cooling process and self-similarity in the mathematical kinetic theory of granular gases"

15h30-16h : Coffee Break.

16h-17h : Open discussion

Wednesday January 23rd

9h-10h30 : Jay Fineberg (Hebrew University, Jerusalem), "2) Frictional motion"

10h30-11h : Coffee Break.

11h-12h30 : Tom Witten (James Franck Institute, Chicago), "Crumpling singularities"

12h30-14h15 : Lunch

14h15-15h : Eli Ben-Naïm (CNLS, Los Alamos) "Singular Energy Distributions in Granular Media"

15h-15h45 : Marco Fontelos (Universidad Autonoma, Madrid), "Singularities in the evolution of charged drops".

15h45-16h15 : Coffee Break.

16h15-16h45 : Christophe Eloy (IRPHE, Marseille) "Flag Flutter : Potential flow around a rectangular plate"

16h45-17h15 : Eytan Katzav (LPS-ENS, Paris) TBA 17h15-18h : open discussion.

18h00-20h00 Cocktails-Buffet

Thursday January 24th

9h-10h30 : Jeffrey Rauch (U. Michigan), "1) Asymptotic Analysis of internal layers"

10h30-11h : Coffee Break.

11h-12h30 : Tom Witten (James Franck Institute, Chicago), "Crumpling singularities"

12h30-14h : Lunch

14h15-15h45 : Miguel Escobedo (Universidad del Pas Vasco, Spain), "2) Singular solutions for the Uehling Uhlenbeck equation : The non linear problem."

15h45-16h15 : Coffee Break.

16h15-17h : Sylvia Serfaty (Paris) "Vortex patterns in the 2D Ginzburg-Landau Model with Magnetic Field"

Friday January 25th

9h-10h30 : Jeffrey Rauch (U. Michigan), "2) Propagation of linear wave packets through periodic media"

10h30-11h : Coffee Break.

11h-11h45 : Hatem Zaag (Paris) "Existence of caracteristic points for blow-up solutions of a semilinear wave equation"

11h45-12h30 : Walter Craig (Mac Master U.) "Bounds on Kolmogorov spectra for the Navier - Stokes equations"

12h30-13h : Closing session