

Third European SCAT Workshop & Summer School in partnership with IRPHE and CNRS

“Vortices and Vortex Sheets: theories, numerics and applications”



One of a series of mini-courses taking place 4-10 June 2007, Centre IGESA

Description

The course will present the basic foundations of vortex sheet theory, commencing by the Birkhoff-Rott equation, and continuing with Kelvin-Helmholtz instability and the effect of strain on the stability of a vortex sheet. As an application of the theory, we will describe the advection of a vortex sheet by a point vortex.

In order to illustrate these topics, we will show some experimental results obtained at IRPHE.

Lecturer

Prof Alberto Verga, Institut de Recherche sur Phénomènes Hors Equilibre (IRPHE), France

Syllabus

Theoretical Foundation

- ▶ The Birkhoff-Rott equation
- ▶ Kelvin-Helmholtz instability
- ▶ Stability of a vortex sheet; effect of strain

Applications

- ▶ Advection of a vortex sheet by a point vortex
- ▶ Experimental realizations of vortex sheets at IRPHE

For more information, email info@scat-alfa.eu or visit www.scat-alfa.eu



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