

SEMINAIRE D'ANALYSE

VENDREDI 24 mai 2019 à 14h15 - salle MA B1 11

Le Prof. **Thierry GALLAY** (*Institut Fourier, Université Grenoble Alpes*)
donnera un séminaire sur le thème:

« SPECTRAL STABILITY OF INVISCID COLUMNAR VORTICES »

Abstract:

Columnar vortices are axisymmetric stationary solutions of the three-dimensional Euler equations, where the velocity field only depends on the distance to the symmetry axis and has no component in the axial direction. These solutions were already studied in the nineteenth century, starting with the pioneering work of Kelvin and Rayleigh, but until recently the stability analysis was restricted to either axisymmetric or two-dimensional perturbations. The purpose of this talk is to give a sufficient condition on the velocity profile to ensure spectral stability with respect to arbitrary perturbations, with no particular symmetry. The result applies to a large family of velocity profiles, including the most common models in atmospheric flows and engineering applications. This is joint work with Didier Smets (Paris).

Lausanne, le 12 mars 2019
BB/MC/JK

Les séminaires qui ont lieu à la Section de Mathématiques sont annoncés sur Internet
<http://memento.epfl.ch/math/>