

**Workshop on Mathematical Physics and Pseudo-Differential Operators –
Celebrating Jean Nourrigat's 80th birthday**

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Singular Integrals Methods for Liouville Theorems

Thursday, November 6, 2025 3:05 PM (45 minutes)

We shall begin our talk with the classical Liouville theorem for harmonic functions and, in the sequel, we shall review the various results obtained for the Navier-Stokes Stationary System for Incompressible Fluids, following in particular the works by D. Chae, G. Galdi, G. Seregin & W. Wang. We'll see that it is possible to obtain some precised regularity results involving several versions of the Wiener Algebra, stable at the same time under products and for the action of Fourier multipliers linked to singular integrals. This will allow us to describe some improvements of the classical results in terms of frequency localisation.

Presenter: LERNER, Nicolas (Sorbonne Université)