Du
29
JAN.
2022

15h00
-
16h00

SÉMINAIRE BOURBAKI

Galina Perelman — Finite time blow up for the compressible fluids and for the energy supercritical defocusing nonlinear Schrödinger equation after Frank Merle, Pierre Raphaël, Igor Rodnianski and Jérémie Szeftel

IHP
Hermite

INSCRIPTION

Attention Changement d'horaire

This talk addresses the problem of singularity formation in solutions of the 3D compressible barotropic Navier-Stokes equation and of the energy supercritical defocusing nonlinear Schrödinger equation. I will explain the recent results of F. Merle, P. Raphaël, I. Rodnianski, and J. Szeftel that link this problem to the compressible Euler dynamics showing that in some range of parameters both models admit finite time blow up solutions governed by appropriate self-similar solutions of the underlying Euler equation. While for the compressible Navier-Stokes equation the existence of finite time blow up solutions was already known, for the nonlinear Schrödinger equation this is the first result of formation of singularities in the defocusing case.

NB: A youtube link is available on bourbaki.fr

URL de la page : https://www.ihp.fr/fr/agenda/galina-perelman-finite-time-blow-compressible-fluids and-energy-supercritical-defocusing&is_pdf=true

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HORAIRES

L'institut :
• lundi au vendredi de 8h30 à 18h,
• fermé les jours fériés.

Le musée - Maison Poincaré :
• lundi, mardi, jeudi et vendredi
de 9h30 à 17h30,
• samedi de 10h à 18h,
• fermé le mercredi et le dimanche.

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