Bern-Fribourg Graduate Seminar

a seminar for Master and PhD students

Thursday $30^{\rm th}$ October, 2025: 17:00 - 17:30 Room 2.73, Perolles 08, Fribourg

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From Fourier restrictions to Strichartz estimates

Abstract

Mathematical problems such as the Kakeya conjecture and the sphere packing problem illustrate the connections between Fourier analysis and various mathematical fields.

In this talk, we begin by introducing the Fourier restriction problem, which examines the behavior of Fourier transforms when restricted to the surface of a sphere. We then explore how this behaviour can be applied to give bounds on solutions of PDE using the examples of the Schrödinger equation; these bounds are known as Strichartz estimates.