



In the framework of the activities of the PhD programme in Mathematical Sciences

Prof. **Riccardo Montalto**

University of Milan

will offer a PhD course on

An introduction to KAM and Normal form methods for PDEs

Abstract

In this course I will present an introduction to KAM and Normal form methods for PDEs. The key tools that I shall present are 1) the theory of pseudo-differential operators 2) the reducibility schemes 3) the Nash-Moser theory. I will present several problems and applications like energy transfer for time dependent Schrödinger equations (growth of Sobolev norms) and construction of quasi-periodic solutions for equations arising from fluid dynamics. The course will be totally self-contained and introductory

Scheduling

The course will be held at the Department of Mathematics, Via C. Saldini n.50 – Milano

from 3 November to 13 December 2022

with the following scheduling:

3, 4, 7, 8, 21 November **hours 4.00 pm – 7.00 pm**

12 December **hours 4.00 pm – 7.00 pm**

13 December **hours 4.00 pm – 6.00 pm**

Room: **Aula Dottorato**, 1st floor