

October 19, 2017, 17:00-18:30

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INTRODUCTION ON TURBULENCE

1st part : Introduction on Turbulence.

The aim of this talk is to introduce the notion of Turbulence based on two books :

- "Turbulence, the legacy of A.N. Kolmogorov" by Uriel Frisch (1995).
- "A first course in turbulence" by Tennekes and Lumley (1970).

2nd part : Unstable small amplitude solutions for a Schrödinger system on the torus.

The modulational instability is a nonlinear behavior often associated to Turbulence. The purpose here is to show, through a simple toy model (a system of two cubic coupled Schrödinger equations on the torus), how this modulational instability leads to a first example of unstable tori for a one dimensional PDE.

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