

$$\forall f \exists g \forall a \in \text{Dom } f \quad (g(a) = \{g(x) \mid x \in f(a)\})$$

$$\sum_{h,k} \frac{\partial x_h}{\partial x_k} \dots$$

$$\sqrt{1 + |Du|^2}$$

$$\lim_{h \rightarrow \infty} \dots$$

$$\forall f \exists g \forall a \in \text{Dom } f \quad (g(a) = \{g(x) \mid x \in f(a) \cap A\} \cup (f(a) \setminus A))$$

Colloquio De Giorgi

EDRISS S. TITI

University of Cambridge

9 December
2024
4:00 pm

Aula Dini
Palazzo del Castelletto
via del Castelletto
Pisa

***Is dispersion a stabilizing or destabilizing mechanism?
Landau-damping induced by fast background flows***

Abstract: In this talk I will present a unified approach for the effect of fast rotation and dispersion as an averaging mechanism for regularizing and stabilizing certain evolution equations, such as the Euler, Navier-Stokes and Burgers equations. On the other hand, I will also present some results in which large dispersion acts as a destabilizing mechanism for the long-time dynamics of certain dissipative evolution equations, such as the Kuramoto-Sivashinsky equation. In addition, I will present some results concerning two- and three-dimensional turbulent flows with high Reynolds numbers in periodic domains, which exhibit “Landau-damping” mechanism due to large spatial average in the initial data.

No previous knowledge will be assumed.

Web site: <http://www.crm.sns.it/event/526/>

The event will take place in person.

info
crm@sns.it



157
226
89
Centro
di Ricerca
Matematica
Ennio De Giorgi