



Colloquio De Giorgi

11 February
2022
4:00 pm

EMANUELE MACRÌ (online participation)
Université Paris-Saclay

Hyper-Kähler manifolds and Lagrangian fibrations

Aula Dini
Palazzo del Castelletto
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Abstract: A hyper-Kähler manifold is a complex Kähler manifold that is simply connected, compact, and has a unique holomorphic symplectic form, up to constants. This important class of manifolds has been studied in the past in many contexts, from an arithmetic, algebraic, geometric point of view, and in applications to physics and dynamics. The theory in dimension two, namely K3 surfaces, is well understood. The aim of the seminar is to give an introduction to the theory of hyper-Kähler manifolds in higher dimension, from a point of view of their classification; in particular, about existence of Lagrangian fibrations. We will present some results in dimension four, obtained recently in collaboration with Olivier Debarre, Daniel Huybrechts and Claire Voisin.

Web site: <http://www.crm.sns.it/event/493/>

Please note that for organizational purposes registration is mandatory for in person participation: <http://www.crm.sns.it/event/493/registration.html>.

The event will take place in hybrid mode, with a maximum of 50 persons in presence. In the event of impediments due to Covid-19 pandemic measures, the lecture will run completely from remote on the same dates

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