SEMINARIO DI MATEMATICA

Mercoledì 26 giugno 2019
ore 16:00

Scuola Normale Superiore
Pisa
Dipartimento di Matematica
Sala Riunioni

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Terrà un seminario dal titolo:

"Global estimates for harmonic maps from surfaces"

Abstract:

A celebrated theorem of F. Hélein guarantees that a weakly harmonic map from a two-dimensional domain is always smooth. The proof is of a local nature and assumes that the Dirichlet energy is sufficiently small; under this condition it is possible to re-write the harmonic map equation using a suitably chosen frame which uncovers non-linearities with more favourable regularity properties (so-called div-curl or Wente structures). We will prove a global estimate for harmonic maps without assuming a small energy bound, utilising a powerful theory introduced by T. Rivière. Along the way we will highlight the relevance of Wente-type estimates in neighbouring areas of geometric analysis, and hint as to why the analogous higher-dimensional global estimate remains a challenging open problem. This is a joint work with Tobias Lamm.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze