SCUOLA
NORMALE
SUPERIORE

SEMINARIO DI MATEMATICA

Venerdì 24 novembre 2017
ore 15:00

Scuola Normale Superiore
Pisa
Aula Tonelli

Costante Bellettini
(University College London)

terrà un seminario dal titolo:

"Stable constant-mean-curvature hypersurfaces: regularity and compactness"

Abstract:
This talk describes a recent joint work of the speaker with Neshan Wickramasekera (Cambridge). The work develops a regularity theory, with an associated compactness theorem, for weakly defined hypersurfaces (codimension 1 integral varifolds) of a smooth Riemannian manifold that are stationary and stable on their regular parts for volume preserving ambient deformations. The main regularity theorem gives two structural conditions on such a hypersurface that imply that, away from a set of codimension 7 or higher, the hypersurface is locally either a single smoothly embedded disk or precisely two smoothly embedded disks intersecting tangentially. Easy examples show that neither structural hypothesis can be relaxed. An important special case is when the varifold corresponds to the boundary of a Caccioppoli set, in which case the structural conditions can be considerably weakened.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze Matematiche e Naturali