



UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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COLLOQUIUM del DIPARTIMENTO



Mercoledì 15 gennaio 2025, ore 16:30

Aula A - Plesso di Matematica

Prof. Giovanni Catino

Politecnico di Milano

Rigidity results for stable minimal hypersurfaces and critical metrics

Abstract: In this talk I will describe some recent results concerning the rigidity of complete, immersed, orientable, stable minimal hypersurfaces: they are hyperplane in R^4 while they do not exist in some positively curved closed Riemannian $(n+1)$ -manifold when $n \leq 5$. The first result was proved also by Chodosh and Li, and the second is a consequence of a more general result concerning minimal surfaces with finite index. Both theorems rely on a conformal method, inspired by classical papers of Schoen-Yau and Fischer-Colbrie. I will also present an application of these techniques to the study of critical metrics of a quadratic curvature functional.

Tutti sono invitati a partecipare.

Organizzatore: Prof. Adriano Tomassini