



UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

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Notizie

SEMINARIO

8 marzo 2017

Data: **martedì 28 marzo**, ore **15:00**

Luogo: Saletta Seminari, Unità di Matematica e Informatica

Relatore: **dott. Giorgio Saracco**,
Friedrich-Alexander Universität Erlangen-Nürnberg

Titolo: **The inner Cheeger formula for simply connected planar sets**

Tutti gli interessati sono invitati a partecipare,

Proff. Alessandra Lunardi e Giampiero Palatucci

Abstract: The well-known Cheeger problem consists in finding the subsets E of a given open ambient space Ω that realize the Cheeger constant, i.e. the infimum of the ratio of perimeter over volume amongst all subsets of Ω of finite perimeter. Whenever the ambient space Ω is bounded, it is known that such minimizers exist but explicitly finding them is generally a difficult task, even in the planar case. We show that for simply connected planar sets satisfying a “no-bottleneck” condition the maximal Cheeger set is given by the union of all balls contained in Ω whose radius is the inverse of the Cheeger constant. Moreover, the inner Cheeger formula holds. This result extends what previously known for planar convex sets and planar strips.

Joint work with G. P. Leonardi (Università degli Studi di Modena e Reggio Emilia) and R. Neumayer (University of Texas).