



SCUOLA
NORMALE
SUPERIORE

SEMINARIO DI MATEMATICA

Mercoledì 2 dicembre 2015
ore 15:00

Scuola Normale Superiore
Pisa
Aula Mancini

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Terrà un seminario dal titolo:

“A non-compactness result on the fractional Yamabe problem in large dimensions”

Abstract:

Let (X^{n+1}, g^+) be an $(n+1)$ -dimensional asymptotically hyperbolic manifold with a conformal infinity $(M^n, [h])$. The fractional Yamabe problem addresses to solve $[P^{\gamma}[g^+, h](u) = cu^{n+2\gamma} / n-2\gamma, \quad u > 0 \quad \text{on } M]$ where $c \in \mathbb{R}$ and $P^{\gamma}[g^+, h]$ is the fractional conformal Laplacian whose principal symbol is $(-\Delta)^{\gamma}$. We construct a metric on the half space $X = \mathbb{R}^{n+1}_+$, which is conformally equivalent to the unit ball, for which the solution set of the fractional Yamabe equation is non-compact provided that $n \geq 24$ for $\gamma \in (0, \gamma^*)$ and $n \geq 25$ for $\gamma \in [\gamma^*, 1)$ where $\gamma^* \in (0, 1)$ is a certain transition exponent. The value of γ^* turns out to be approximately 0.940197. This is a joint work with Seunghyeok Kim and Juncheng Wei.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze Matematiche e Naturali