



SCUOLA  
NORMALE  
SUPERIORE

## SEMINARIO DI MATEMATICA

Giovedì 23 novembre 2017  
ore 15:00

Scuola Normale Superiore  
Pisa  
Aula Bianchi Scienze

**Blazej Wrobel**

(Università di Wroclaw, Polonia e di Università di Bonn, Germania)

terrà un seminario dal titolo:

# **“Dimension-free variational inequalities for averaging operators in $\mathbf{R}^d$ ”**

### **Abstract:**

In 1982 E.M. Stein proved that the centered Hardy-Littlewood maximal function for the Euclidean ball satisfies dimension-free estimates on  $L^p(\mathbf{R}^d)$   $1 < p < \infty$ . Stein's result has been later generalized to include other symmetric convex bodies by Bourgain, Carbery, and Müller. The purpose of this talk is to describe a recent variation on the same theme, with the supremum in the definition of the maximal function being replaced by the  $r$ -variational seminorm. The talk is based on joint work with Jean Bourgain, Mariusz Mirek, and Elias M. Stein.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze Matematiche e Naturali