



SCUOLA  
NORMALE  
SUPERIORE

## SEMINARIO DI MATEMATICA

Martedì 22 novembre 2016  
ore 11:00

Scuola Normale Superiore  
Pisa  
Aula Tonelli

**Gennady Uraltsev**  
(*Università di Bonn*)

terrà un seminario dal titolo:

### **“The Variational Carleson Operator - capturing locality using and embedding maps into the symmetry space”**

**Abstract:**

We will present the Variational Carleson Operator and some noteworthy applications: almost everywhere convergence of the Fourier inversion formula, controlling paths on Lie groups using their trace on the tangent. A novel approach to proving the boundedness of the operator on  $L^p$  uses embedding maps into the time-scale-frequency space of the operator's defining symmetries. The appropriate functional framework to do this seems to be given by the iterated (or semi-direct product) generalization of Outer Measure  $L^p$  norms. This allow us to capture locality properties of the operator and to obtain domination by sparse forms. Sharp Muckenhoupt weighted bounds then follow by well established methods.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze Matematiche e Naturali