



SCUOLA  
NORMALE  
SUPERIORE

## SEMINARIO DI MATEMATICA

Venerdì 22 giugno 2018  
ore 11:00

Scuola Normale Superiore  
Pisa  
Aula Mancini

**Enrico Priola**

*(Università di Torino)*

terrà un seminario dal titolo:

### **“Poisson stochastic process and basic parabolic estimates”**

**Abstract:**

We show how knowing Schauder or Sobolev-space estimates for the one-dimensional heat equation allows one to derive their multidimensional analogs for equations with coefficients depending only on time variable with the same constants as in the case of the one-dimensional heat equation. The method is quite general and is based on using the Poisson stochastic process. It also applies to other types of estimates and to equations involving non-local operators. It looks like no other methods are available at this time and it is a challenging problem to find an analytic approach to prove such results. In the talk I will concentrate on basic Sobolev estimates for the heat equation trying to explain the method.

This is a joint work with N. V. Krylov.

Tutti gli interessati sono invitati a partecipare.

Classe di Scienze