



SCUOLA NORMALE SUPERIORE
Pisa

SEGRETERIA CLASSE DI SCIENZE

AVVISO

Il ciclo di seminari di **Analisi Armonica**, proseguirà

Martedì **28 marzo** alle ore **10.00** in aula **Fermi**

sul seguente argomento:

“Differentiable L^p -functional calculus for certain sums of non-commuting operators”

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Abstract

Let T be a selfadjoint operator on the square integrable functions on some measure space X . According to the spectral theorem a bounded Borel function f induces a bounded operator $f(T)$ on $L^2(X)$. An interesting question is now, under which additional assumptions on f the operator extends to a bounded operator on $L^p(X)$ for $p \neq 2$. The talk will deal with this question in the case where T belongs to a class of sums of non-commuting operators. Our result extends some nice result of Sami Mustapha about sub-Laplacians on a class of solvable Lie-groups with exponential volume growth. But our proof uses functional calculus and special functions instead of probabilistic methods. The setting we discuss first is free of Lie groups, but the particular examples we would like to give are certain differential operators on Lie groups with exponential volume growths.

Il programma dei seminari proseguirà a cadenza settimanale, in aula **Tonelli**, il **giovedì** alle ore **11.00**.

Tutti gli interessati sono invitati a partecipare.

Segreteria della
Classe di Scienze