# AVVISO

Il ciclo di seminari di *Analisi Armonica*, proseguirà

Giovedì **18 maggio** alle ore **15.00** in aula **Fermi**

sul seguente argomento:

## *"Beurling dimension and wave packets of Cordoba and Fefferman"*

### *Wojtek Czaja*
*Università di Vienna*

Abstract

*We study wave packets $WP(\psi,M)$; that is, countable collections of dilations, translations, and modulations of a single function $\psi$ in $L^2(\R)$. The parameters of these unitary actions form a discrete subset $M$ of $R^+ x R x R$. We introduce analogues of the notion of Beurling density, adapted to the geometry of discrete subsets of $R^+ x R x R$, and notions of lower and upper Beurling dimensions associated with these densities. Our goal is to describe completeness properties of wave packets via geometric properties of the sets of their parameters. In particular, we show necessary conditions for $WP (\psi,M)$ to be a Bessel system, and we construct multiple examples of non-standard wave packets with prescribed dimensions.*

Tutti gli interessati sono invitati a partecipare.

Segreteria della
Classe di Scienze