

# SEMINARIO DI GEOMETRIA

28 Novembre 2012, h.11.00-12.00

@ Dipartimento di Matematica, Università di Torino,  
via Carlo Alberto 10  
AULA C

**STEPHANE DRUEL**

(Institut Fourier, Grenoble)

## On codimension one del Pezzo foliations on varieties with mild singularities

A  $Q$ -Fano foliation on a complex projective variety  $X$  is a foliation  $F$  whose anti-canonical class is an ample  $Q$ -Cartier divisor. In the spirit of Kobayashi-Ochiai Theorem, we prove that under some conditions the index  $i$  of a  $Q$ -Fano foliation is bounded by the rank  $r$  of  $F$ , and classify the cases in which  $i = r$ . Next we consider  $Q$ -Fano foliations  $F$  for which  $i = r - 1$ . These are called del Pezzo foliations. I will discuss the classification of codimension 1 del Pezzo foliations on mildly singular varieties. This a joint work with Carolina Araujo.