



SCUOLA  
NORMALE  
SUPERIORE  
PISA

## SEMINARIO DI MATEMATICA

**venerdì 5 giugno 2009**  
ore 11.00

Scuola Normale Superiore  
Pisa  
(Aula Mancini)

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Terrà un seminario dal titolo:

### **“Dynamical Mordell-Lang problems”**

**Abstract:**

*Let  $S$  be a group or semigroup acting on a variety  $V$ , let  $x$  be a point on  $V$ , and let  $W$  be a subvariety of  $V$ . What can be said about the structure of the intersection of the  $S$ -orbit of  $x$  with  $W$ ? Does it have the structure of a union of cosets of subgroups of  $S$ ? The Mordell-Lang theorem of Laurent, Faltings, and Vojta shows that this is the case for certain groups of translations (the Mordell conjecture is a consequence of this). On the other hand, Pell's equation shows that it is not true for additive translations of the Cartesian plane. We will see that this question relates to issues in complex dynamics, simple questions from linear algebra, and techniques from the study of linear recurrence sequences.*

Tutti gli interessati sono invitati a partecipare.

La Segreteria della  
Classe di Scienze