



# Università degli Studi di Palermo

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Dipartimento di Matematica e Informatica

*Words and Automata Research Group*

## ANNUNCIO DI SEMINARIO

**Titolo: Random subgroups of a free group and automata**

Frédérique Bassino, Université Paris 13

Martedì 5 Novembre 2013, ore 12.00

Aula 7

Via Archirafi 34, 90123 Palermo

**Abstract:**

Let  $A$  be a finite alphabet. The free group  $F(A)$  is the set of finite reduced words made of letters from  $A$  and their (formal) inverses. In this talk we show how one can study with probabilistic and combinatorial methods algebraic properties of a random finitely generated subgroup of  $F(A)$ . One of the key tool is the representation of such a subgroup by a special automaton obtained by Stallings's foldings. We shall introduce some combinatorial tools to study quantitatively these special automata. And We shall compare the behaviour of finitely generated random subgroups under some natural probability distributions.

***Tutti gli interessati, in particolare gli studenti, sono invitati a partecipare***