

BATOG - Bicocca Afternoon Talks On Groups

Università Milano-Bicocca, Dipartimento di Matematica e Applicazioni
Ed. U5, Aula 3014

Theo A. D. Zapata – Thu. 10/01/19, 16:00

(Universidade de Brasilia)

A Profinite Analogue of Limit Groups

Abstract: In the last decades limit groups have been attracting the attention of many mathematicians, specially because they played a fundamental role in the recent solution of the outstanding Tarski problem on free groups. Two simple group-theoretical reasons for so much attention are the following: limit groups are approximable by free groups, according to their many definitions; and, limit groups forms a class of groups that envelopes finitely generated free groups and finitely generated free abelian groups.

We present results on the group theoretic structure and on cohomological properties of the profinite completion of limit groups. Our approach to investigate profinite extensions of centralizers uses the profinite version of Bass-Serre theory and homological methods.

This is a joint work with P.A. Zalesskii.

Flavia F. R. Zapata – Thu. 17/01/19 - 16:00

(Universidade de Brasilia)

The Congruence Kernel of some Weakly Branch Groups

Abstract: Focusing on the Brunner-Sidki-Vieira group and the Basilica group, we shall explain how to use profinite groups to solve the congruence subgroup problem for certain self-similar groups generated by automata; a detailed description of the congruence kernel will be given.

This is a joint work with T. Zapata. This talk will be a colloquium, suitable to a general audience.