FACOLTÀ DI SCIENZE MATEMATICHE, FISICHE E NATURALI
DIPARTIMENTO DI MATEMATICA E FISICA "NICCOLÒ TARTAGLIA"

On the poly-freeness of some Artin groups

Introduce:
Clara FRANCHI, Università Cattolica del Sacro Cuore

Interviene:
Lorenzo MORESCHINI
Dipartimento di Matematica "F. Casorati", Università degli Studi di Pavia

Abstract

Artin groups are defined through an explicit presentation each of whose relators is given by the alternating product of only two generators.

Strictly tied to these groups are Coxeter groups, obtained by forcing the generators of the Artin groups to be reflections (i.e., elements of order 2). Artin groups were historically introduced by Tits as extensions of Coxeter groups (which had already been introduced in connection with reflection groups), but their study really began in the seventies with the works of Brieskorn, Saito and Deligne.

In my presentation I will be particularly interested in two families of such groups: spherical Artin groups (those whose associated Coxeter group is finite) and Artin groups built on trees. After giving the necessary definitions and a couple of simple examples, I will delve into explaining why the above families of groups are poly-free and I'll give a more specific result about their commutator subgroups.

Though I won't be able to give all the details, my aim is to highlight how for such groups some algebraic properties can be read directly from their defining graph.

Seminario

Giovedì 30 maggio 2019
Aula 6, ore 14.30
Via dei Musei 41 - Brescia

UNIVERSITÀ CATTOLICA
del Sacro Cuore