Al@Bicocca seminar

You are all welcome to the next bite of the series "Al@Bicocca"

this time with a double Algebra seminar at Bicocca:

An afternoon with Artin groups

Emanuele Delucchi

SUPSI

How Artin are these groups?

Abstract: Artin groups famously arise as fundamental groups of (orbit) configuration spaces, often related to complement manifolds of hyperplane arrangements. Via a celebrated theorem of Deligne (finitetype) and Paolini-Salvetti (Euclidean-type), this provides finite $K(\pi, 1)$ spaces for such groups. Fundamental groups of general hyperplane arrangement complements have been classically studied as natural generalizations of (pure) braid groups. In this informal talk I will suggest considering fundamental groups of a more general class of arrangements of hypersurfaces in the complex torus and in products of elliptic curves. Such arrangements have been in the focus of considerable research lately, both from a topological as well as the combinatorial point of view. They include important examples such as the comfiguration space of points on elliptic curves. (Finite) presentations of their fundamental groups are known, but their structure is as yet little understood. In this talk I will explain the definitions and briefly survey the state of the art, taking the K(pi,1) problem as a "leitfaden", raising the question about what methods or result related to Artin groups can be used in order to explore the structure of these "new" groups. Time permitting, I will mention some current joint work with Ettore Marmo about possible applications to the study of the Bloch-Kato property for braid groups.

And, at 16pm, **Conchita Martinez-Perez** will give a talk titled *The derived subgroup of coherent Artin groups.* Click here for the poster.



13 May 2024 14.30 am (UTC+1)

Online venue: WebEx

University of Milano-Bicocca Via R. Cozzi 55 Milano (IT)

Organizers:

Marco Barbieri Alberto Cassella Giulia Dal Verme Nicola Grittini Francesco Matucci Matteo Tarocchi

Website 🏶