## Al@Bicocca seminar

You are all welcome to the next bite of the series

### "Al@Bicocca"

which is meant to give you a small taste of the Algebra at Bicocca and beyond

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# Bases of Permutation Groups and IBIS groups

**Abstract:** Let *G* be a finite permutation group acting on a set  $\Omega$ . A base for *G* is a sequence of points of  $\Omega$  with trivial pointwise stabilizer. A base is called irredundant if no point in the sequence is fixed by the stabilizer of its predecessors. The minimal size of a base is known as the base size of *G*, and it is one of the most studied invariants in permutation group theory.

In this talk, we will first provide an overview of the main results concerning the base size of permutation groups. We will then focus on a special class of groups in which every irredundant base has the same size — these are called IBIS groups (short for Irredundant Bases of Invariant Size). The classification of primitive IBIS groups is still an open problem, and we will present the progress made so far in achieving this classification.



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### Online venue: WebEx

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

#### Organizers:

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