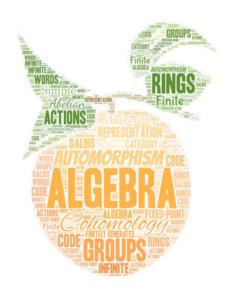# Al@Bicocca seminar

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

Giada Serafini

University of Düsseldorf

Profinite properties of ℓ^2-invariants

Abstract: Although higher ℓ^2-Betti numbers $b_n^{(2)}, n \geq 2$ are in general not profinite invariants, some interesting information on the ℓ^2-cohomology of S-arithmetic groups still seems to be preserved under profinite commensurability. This leads us to prove a stability result for another ℓ^2-invariant strictly related to the ℓ^2-Betti numbers: the sign of the Euler characteristic, which indeed can be seen as the alternating sum of such $b_n^{(2)}$.

In this talk we will introduce the basics and motivations for being interested in Profinite rigidity and then we will discuss the key steps needed to prove our result for S-arithmetic groups in terms of local-global principles in the setting of Galois cohomology.

All of this is joint work with Holger Kammeyer.