

INSALATE DI MATEMATICA

presents

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Groups acting on fractals and graph approximations



Abstract:

This talk is about rearrangement groups: a family of groups of certain homeomorphisms of fractals that permute finitely many self-similar pieces.

Homeomorphism groups of fractals are often uncountable topological groups, which are difficult to study algebraically. Rearrangement groups, while only being countable, are often rich enough to be dense in the homeomorphism groups of the fractals on which they act, yet they are manageable enough that algorithmic problems on them are treatable, and they have plenty of interesting algebraic properties of their own.

Since this talk is aimed at a general audience and deals with an intersection of topology, algebra and computation, it will focus on a general description of rearrangements and, as an application, show how to tackle their conjugacy problem.

Keywords: homeomorphism groups · self-similar fractals · decision problems

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U5-3014
04:30 pm (CET)



*"Obvious" is the most dangerous word in mathematics.
(Eric Temple Bell)*