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An invitation to Local-to-Global rigidity

Thursday, 25 September 2025 10:00 (1 hour)

This talk is intended as an introduction to the so called “Local-to-Global rigidity”of graphs and aims to present the links of this notion with both topology and geometry.
More precisely, a graph G is called Local-to-Global rigid if there exists R>0 such that every other graph whose balls of radius R are isometric to the balls of radius R in G is covered by G.
We’ll talk about the motivations, discuss numerous examples and borrow topological tools to settle the basis. We will also see the known cases where LG-rigidity is invariant under quasi-isometry and, if time permits, discuss some strategies to prove this invariance.

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