TOPOLOGY SEMINAR

Path Partial Groups

By

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Abstract: In this lecture we shall show how path concatenation in a simple graph G gives rise to a partial group P(G) that we call the path partial group associated to the graph G. The construction of path partial groups is indeed functorial and allows us to embed the category of simple graphs into the category of partial groups. This embedding is full on automorphism so it shows that any group can be realised as the full group of automorphisms of a partial group, while not every group is the full group of automorphisms of an honest group. Finally, thinking of partial groups as simplicial complexes, we show that every group is the group of self homotopy equivalences of a simplicial complex. This is a joint work with Antonio Díaz-Ramos (U. Malaga) and Rémi Molinier (U. Grenoble).

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Place: Zoom

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