

Institut für Geometrie

Gastvortrag

22.02.2022, 10:30 Uhr

Seminarraum 2, Kopernikusgasse 24/IV

Continuous and discrete dynamic topology

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I will present two approaches to the common theme of a topological space changing over time. The first approach is a way to understand algebraic changes in the homology of a simplicial complex of a point cloud, as its points move around in Euclidean space. The second approach is about binary dynamics of a fixed point cloud, where edges are determined by a biologically-motivated reconstruction of a mammalian brain. The dynamics in both cases are arbitrary, but the second approach focuses on recovering long-term patterns with topology at the local scale. This is joint work with Barbara Giunti, Ran Levi, and others.

Barbara Giunti