

Seminar/Talk

GeomTop Seminar: Ham-Sandwich cuts and center transversals in subspaces

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Host: Uli Wagner

The Ham-Sandwich theorem is a well-known result in geometry. It states that any \$d\$ mass distributions in \$\mathbb{R}^d\$ can be simultaneously bisected by a hyperplane. The result is tight, that is, there are examples of \$d+1\$ mass distributions that cannot be simultaneously bisected by a single hyperplane. In this talk we will study the following question: given a continuous assignment of mass distributions to certain subsets of \$\mathbb{R}^d\$, is there a subset on which we can bisect more masses than what is guaranteed by the Ham-Sandwich theorem?We will study two different types of subsets, motivated by conjectures by Luis Barba (which we will answer) and Stefan Langerman (which we solve only in a relaxed setting), respectively. Some of the results we also extend to center transversals, a generalization of Ham-Sandwich cuts.

Wednesday, May 15, 2019 01:00pm - 02:15pm

Mondi Seminar Room 3, Central Building



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