Seminarium geometrów

https://dgt.math.uni.wroc.pl/

Poniedziałek, 13.10.2025, 14:15 WS

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Configuration space of two particles in a graph and more

Abstract: Configuration space of n particles in a space X is a subspace of X^n consisting of tuples of pairwise distinct points from X. I will discuss the case of two particles in a graph. The research on configuration spaces in graphs was fairly extensive in last 25 years, thus most of my talk would introduce alternative methods to obtain already known results. Despite that, even this simple case is not entirely resolved and those new techniques could be used for progress. I will show how to determine the homotopy type of $\mathrm{Conf}(X)$ for X a tree or a complete bipartite graph, describe what happens when X is a cartesian product or a cone or how configuration space changes when we add edges to a graph.

Streaming via ZOOM:
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