

Prof. Dr. Günter Ziegler (FU)

On some partition problems and their configuration spaces

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ORT:

Universität Potsdam
Institut für Mathematik
Am Neuen Palais 10
14469 Potsdam

This lecture will be a report about a research endeavour that started with a seemingly harmless problem:

"Can every convex polygon be cut into n pieces of equal area and circumference?"

In my lecture I plan to discuss

- configuration spaces of partitions of the polygon
- a reduction to equivariant topology, and
- partial results.

The discussion will connect quite diverse mathematical subjects such as generalized Voronoi domains, optimal transport, configuration spaces, subspace arrangements, and computations in equivariant cohomology.
(Joint work with Pavle Blagojevic)

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