

INVITATION TO THE LECTURE

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ROOM 213

COMBINATORICS IN TOPOLOGY AND VICE VERSA

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The rise of computing in the 20th century spurred rapid development of combinatorics which also led to connections with other mathematical fields such as topology. The connection between combinatorics and topology is notably two-way. On the one hand, natural combinatorial questions arise from the discretization of topological spaces; on the other hand, purely combinatorial problems have been solved using topological methods in unexpected ways.

This talk will offer an overview of several results at the interplay of topology, combinatorics, and computational complexity, which are related to the speaker's previous research. We will conclude by touching upon current research directions, and eventually, mentioning some open problems.