

Simplifications of Finite Spaces Equipped with Sheaves

Artem Malko

National Research University

The classical results of Stong have established a foundational framework for the analysis of finite topological spaces through the identification and elimination of beat points, leading to the concept of a core. This talk begins with an overview of these seminal contributions and their implications for the simplification and homotopy classification of finite posets. Following the classical results of Stong, a cohomological analogue of a core for finite sheaved topological spaces is introduced, and an algorithm for simplification in this category is proposed. In particular, the notion of beat vertices is generalized, and it is demonstrated that if a vertex of a sheaved space has a topologically acyclic downset (with trivial coefficients), then its removal preserves the sheaf cohomology.

Data: 27 de Maio de 2025, martes

Lugar: Aula 10, Facultade de Matemáticas USC e [en liña](#)

Duración: 1 hora

Hora: 17:00