Distributional topological complexity and LS-category

Urban Ogrinec
Seminar za geometrijsko topologijo, 12.3.2025

We are going to introduce new version of topological complexity dTC. Suppose one wants to build an algorithm to get from a position $x \in X$ to a position $y \in Y$ for each x and y. Such algorithm cannot be continuous as a funciton of two variable $(x, y) \in X \times X$ for most spaces X. The idea of dTC is that at position x, the sysem can break into finitely many pieces and each of them pieces travel to y independently.

References

[1] Dranishnikov, Alexander, and Ekansh Jauhari. "Distributional topological complexity and LS-category." arXiv preprint arXiv:2401.04272 (2024).