YEDİTEPE UNIVERSITY

MATHEMATICS DEPARTMENT SEMINARS

Directed topological complexity of spheres

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Abstract: Topological complexity is a homotopy invariant which measures how far a space away from admitting a motion planning algorithm [2]. A new variant of topological complexity given through directed paths is introduced by Goubault, Sagnier and Farber in [3]. This new concept is useful for classifying directed spaces.

In this talk, I will give a brief introduction to usual topological complexity and directed topological complexity, and I will discuss directed topological complexity of directed n-spheres [1]. This is a joint work with Mark Grant.

References

[1] A. Borat, M. Grant, Directed topological complexity of spheres, submitted. arXiv:1810.00339.

[2] M. Farber, Topological complexity of motion planning, Discrete Comput. Geom. 29 (2003), no. 2, 211—221.

[3] E. Goubault, A. Sagnier, M. Farber, Directed topological complexity, submitted. arXiv:1812.09382.

Date: Friday, April 26, 2019

Time: 13:00

Place: Seminar Room