



# TOPOLOGY SEMINAR

## Sequential Motion Planning assisted by Group Actions

By

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**Abstract:** In this talk I will revisit the concept of effectual and effective topological complexity (TC) in the context of sequential motion planning. These invariants provide a natural context to incorporate group actions into the study of the motion planning problem. Related to these invariants, I will talk about a third version of TC that incorporates the group action into its planners, which we call orbital topological complexity. I will discuss how they relate to each other and to the TC of the quotient space. I will also present some calculations for actions of the group of order two on orientable surfaces and spheres.

**Date:** April 18, 2022

**Time:** 17:00

**Place:** Zoom

To request the event link, please send a message to [cihan.okay@bilkent.edu.tr](mailto:cihan.okay@bilkent.edu.tr)