



TOPOLOGY SEMINAR

Topological Machine Learning

By

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Abstract: In this talk, we will explore key techniques in topological machine learning and highlight their applications in two distinct areas. First, we will discuss computer-aided drug discovery, where Multiparameter Persistence is leveraged for graph representation learning. Second, we will examine cancer detection from histopathological images using cubical persistence. Our approach is applied to five different cancer types, achieving superior performance compared to state-of-the-art deep learning methods. The talk is designed to be accessible for advanced undergraduate students in mathematics, science, and engineering, requiring no prior knowledge of topology or machine learning.

Date: May 30, Friday, 2025

Time: 14:30

Place: SA141 & ZOOM

To request the event link, please send a message to cihan.okay@bilkent.edu.tr