TOPOLOGY SEMINAR

Persistent Homology and Injectivity

By

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Abstract: Persistent homology induced by the simplicial Vietoris-Rips filtration is a standard method for capturing topological information from metric spaces. In this talk, I will describe a more geometric filtration, obtained through injective metric spaces, which is equivalent to the Vietoris-Rips filtration up to homotopy. Injective metric spaces are the injective objects in the category of metric spaces. This new filtration allows one to see new connections between the geometry and topology of the underlying space. This is a joint work with Sunhyuk Lim and Facundo Memoli.

Date: 25 October, 2021
Time: 15:30 UTC+3
Place: Zoom

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