



TOPOLOGY SEMINAR

UMAP for the working mathematician

By

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Abstract: The Healy-McInnes UMAP algorithm is a highly successful clustering tool that involves interesting ideas from mathematics and data science:

- 1) Spivak's theory of extended pseudo metric spaces (ep-metric spaces)
- 2) TDA constructions in ep-metric spaces
- 3) weighted graphs
- 4) classical dimension reduction
- 5) graph optimization: fuzzy sets, cross entropy

I will explain the algorithm from a mathematical point of view.

Date: Mar 21, 2022

Time: 16:30 UTC+3

Place: Zoom

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