



THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS COLLOQUIUM

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Topological Data Analysis, Linear Algebra, and Optimization

THURSDAY, November 5, 2020, at 4:40 pm
via ZOOM

ABSTRACT

Topological data analysis provides tools used to capture information about the geometry and topology of data sets which can then be used in mathematical modeling and machine learning tasks. In this talk, I will discuss recent work on how a matrix factorization viewpoint led to parallelization and massive speedups in the computation of persistent and zigzag homology, fundamental tools in topological data analysis. I will also discuss recent work integrating topology into optimization problems and deep learning.

For further information and inquiries, please email Zellencia Harris at zellenciah@uchicago.edu. If you wish to subscribe to our listserv, please visit the following website:

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