



# TOPOLOGY SEMINAR

## $(\infty, 2)$ -categories and lax colimits

By

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**Abstract:** Many higher-categorical structures, most notably  $(\infty, 1)$ -categories themselves, form  $(\infty, 2)$ -categories. It is thus highly desirable to characterize such structures in terms of  $(\infty, 2)$ -categorical universal properties. One recent framework allowing us to understand such  $(\infty, 2)$ -categorical universal properties is the theory of (co)limits in  $(\infty, 2)$ -categories. In this talk, I will explain the developing theory of (partially) lax colimits in  $(\infty, 2)$ -categories, and discuss how it recovers a number of previous notions in the literature. I will then explain how one can generalize from the  $(\infty, 1)$ -categorical setting to obtain a cofinality criterion for  $(\infty, 2)$ -functors. This work was joint with Fernando Abellán.

**Date:** Monday, November 27, 2023

**Time:** 13:30

**Place:** SA141 - Mathematics Seminar Room + ZOOM

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