

TOPOLOGY SEMINAR

Colimits of categories, zig-zags and necklaces

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Abstract: Colimits of simplicial categories are generally considered hard to understand in explicit terms. Important simplicial categories, such as those freely generated by simplicial sets, arise as such colimits. In fact, the free simplicial category - coherent nerve adjunction has been demonstrated by Lurie to be a Quillen equivalence. We discuss how the problem of computing colimits of simplicial categories reduces to computing colimits of categories. Then, we present a theorem which describes the latter in explicit terms (to the best of our knowledge, not in the literature). As an application, we provide a computational proof of the Necklace Theorem of Dugger and Spivak.

Date: Monday, October 9, 2023 Time: 13:30 Place: SA141 - Mathematics Seminar Room & ZOOM To request the event link, please send a message to <u>cihan.okay@bilkent.edu.tr</u>