TOPOLOGY SEMINAR

The Euler Characteristic of a Finite Category

By

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Abstract: The Euler characteristic of a polyhedron is known as the numbers of vertices minus edges plus faces. This idea is generalized for posets and defined as the alternating sum of the numbers of chains of each length. Since a poset can be considered as a category, the question whether or not the same idea can be generalized for categories arises naturally. The answer is partially yes. Leinster defined an Euler characteristic for categories having invertible incidence matrices. More generally, he defined it for categories having both weighting and co-weighting. In this talk we will discuss some properties of this generalization.

Date: Monday, November 28, 2022
Time: 13:30
Place: SA141 Mathematics Seminar Room