



# TOPOLOGY SEMINAR

## Markov Categories II

By

**Aziz Kharoof**  
(Bilkent)

**Abstract:** We will start by explaining the main example of a Markov category: the category of Markov kernels. Then we will give more examples and discuss the basic properties. In addition, we will present the relation between Markov categories and Kleisli categories.

Reference: “A synthetic approach to Markov kernels, conditional independence and theorems on sufficient statistics” by Tobias Fritz.

For the relationship between Markov categories and Kleisli categories, we will use another reference: “Representable Markov Categories and Comparison of Statistical Experiments from Categorical Probability” by Tobias Fritz, Tomas Gonda, Paolo Perrone, and Eigil Fjeldgren Rischel.

**Date:** Monday, November 21, 2022

**Time:** 13:30

**Place:** SA141 Mathematics Seminar Room