TOPOLOGY SEMINAR

Simplicial distributions

By

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Abstract: In this talk, I will talk about simplicial distributions, new combinatorial objects that mix elementary probability theory with simplicial sets. The main point needed from the previous talk is the definition of D_R monad. I will extend this monad to the category of simplicial sets and consider the Kleisli category. This theory encapsulates an important notion from quantum theory known as quantum contextuality. I will give important examples that come from physics. I will show topological intuition can give a more systematic approach and provide new ways of proving results. There will be follow-up talks providing more applications and details of the theory. This is joint work with Selman Ipek and Aziz Kharoof, based on https://arxiv.org/abs/2204.06648.

Date: Monday, October 3, 2022
Time: 13:30
Place: SA141 Mathematics Seminar Room