

We will continue on Thursday, **May 9, in M5 at 1pm** by the talk

E. Lanari

Simplicial models for $(\infty,2)$ -categories

Abstract:

This talk will revolve around two simplicial models for $(\infty,2)$ -categories, namely Lurie's ∞ -bicategories and Verity's complicial model. After a brief overview and some preliminaries on the category of scaled and stratified simplicial sets, we will delve right into the construction of a model structure for "weak" ∞ -bicategories, which we prove to be equivalent to the one for saturated 2-trivial complicial sets (i.e. the complicial version of $(\infty,2)$ -categories). We then describe Lurie's model structure for ∞ -bicategories and a Quillen equivalence with another model, i.e. that of categories enriched over marked simplicial sets, which shows ∞ -bicategories are a model for $(\infty,2)$ -categories in the sense of Barwick-Schommer Pries. We conclude the talk with a conjecture on the equivalence between our model structure and Lurie's one, and its corollaries.