



Seminari Informal de Matemàtiques de Barcelona

Speaker: David Martínez Carpena.
University: Universitat de Barcelona.

Date: Wednesday, November 3rd, 2021.
Schedule: 12:00, *virtual coffee break*; 12:20, talk.
Place: Zoom (the link will be posted on our website).
Language: English.

Title: Topological models of ∞ -groupoids

Abstract: In higher category theory, ∞ -groupoids are ∞ -categories whose morphisms are weakly invertible at all orders. Every topological space has an associated ∞ -groupoid, named its fundamental ∞ -groupoid, which encodes the information of higher paths over the space. The statement that every space can be recovered up to homotopy from its fundamental ∞ -groupoid is known as Grothendieck's homotopy hypothesis. In this presentation, we choose a model of ∞ -categories based on topologically enriched categories, and discuss the homotopy hypothesis in this context.

About us: *SIMBa* is a youth mathematics seminar organized by graduate students in the Barcelona area. It is aimed towards graduate and last course undergraduate students. Our goals are divulging the knowledge from different branches of mathematics for those interested and promote networking between the attendants.

This seminar is backed by the Faculty of Mathematics and Computer Science at Universitat de Barcelona, Faculty of Mathematics and Statistics at Universitat Politècnica de Catalunya, the Department of Mathematics from Univesitat Autònoma de Barcelona, CRM, IMUB and BGSMath.

Fore more information, visit at www.ub.edu/simba/en/.

If you have any doubt or comment do not hesitate to contact us by sending an email to seminari.simba@gmail.com.