

The logo for SIMBa, featuring the text "SIMBa" in a bold, black, serif font on a solid orange rectangular background.

BGSMath
BARCELONA GRADUATE
SCHOOL OF MATHEMATICS

Seminari Informal de Matemàtiques de Barcelona

Speaker: Javier Villar.

University: Universidad de La Rioja.

Date: Wednesday, November 17th, 2021.

Schedule: 12:00, *virtual coffee break*; 12:20, talk.

Place: Zoom (the link will be posted on our website).

Language: English.

Title: Computation, Complexity, P-NP (and the fistful of sand that learned how to think)

Abstract: Worst-time complexity, Blum's complexity measures, and the complexity classes derived from them, are some of the most basic tools of modern Computer Science. The theory developed from the problem of classifying computational problems is a rich and popular piece of Math, with many applications to fields like Cryptography or Statistical Physics.

In this presentation we try to give a minimum-prerequisite insight into the current understanding of computability, machine-independent complexity, the P-NP problem and the reasons behind why we haven't been able to solve it (yet).

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.