Seminari Informal
de Matemàtiques de Barcelona

Speaker: Clara Torres Latorre.
University: Universitat de Barcelona.

Date: Wednesday, October 5th, 2022.
Schedule: 13:00, *virtual coffee break*; 13:20, talk.
Place: UPC (FME aula 002) and Zoom.
Language: English.

Title: The Signorini problem: overview and recent results

Abstract: The Signorini problem is a free boundary problem arising from elasto-statics, and can also be seen as the counterpart to the obstacle problem when the obstacle has codimension 1. The main questions are understanding the regularity of solutions and the regularity of the free boundary.

In the first part of the talk, I will present the problem and discuss some relevant known results.

Then, I will introduce the concept of generic regularity and explain the strategy of Figalli, Ros-Oton and Serra to prove that kind of results in the obstacle problem.

Finally, I will expose my recent result with Fernández-Real about generic regularity in the Signorini problem, and comment briefly on the recent developments that have made it possible.

About us: *SIMBa* is a 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*.