

# Seminari Informal de Matemàtiques de Barcelona

---

**Speaker:** Damià Torres.  
**University:** Universitat de Barcelona.

**Date:** Wednesday, 13th of May.  
**Schedule:** 12:00, *virtual coffee break (bring your coffee)*; 12:20, talk.  
**Place:** Zoom, *A link will be provided the day before.*  
**Language:** English.

**Title:** Elliptic PDE 1: Why do we study them?

**Abstract:** Elliptic PDE theory plays a central role in modern mathematical analysis, and it is connected with probability and geometric measure theory. Historically, elliptic PDE come from physical problems related to the heat equation, first studied by Fourier in 1822, and also from the Poisson equation, that appears in electromagnetism. In this first talk, we discuss both classical and modern applications, and we introduce concepts to state the main problem in the field: existence, uniqueness and regularity of solutions.

---

**About us:** The SIMBa is a young seminar organized by students of the Faculties of Mathematics and Computer Science of Barcelona. It is aimed at doctoral, master's degree students and, also, for those who are in the last grade courses. Our goal is that each one can make known the research which they are doing, as well as, to get new knowledge of other areas of mathematics than his own..

For more information, visit at [www.ub.edu/simba/en/](http://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@ub.edu](mailto:seminari.simba@ub.edu).