

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

**BGSMath**  
BARCELONA GRADUATE  
SCHOOL OF MATHEMATICS

# Seminari Informal de Matemàtiques de Barcelona

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**Speaker:** Anna Jové.

**University:** Universitat de Barcelona.

**Date:** Wednesday, April 3rd, 2024.

**Schedule:** 13:00, *coffee break*; 13:20, talk.

**Place:** UB (FMI aula IA) and Zoom.

**Language:** English.

**Title:** Pesin's theory in a transcendental setting

**Abstract:** Roughly speaking, Pesin's theory for  $\mathbb{R}^n$  diffeomorphisms states that the asymptotical contraction or expansion around almost-every orbit is controlled by the Lyapunov exponents (as long as none of them is zero). For rational maps, this translates into well-defined generic inverse branches around almost-everywhere in the Julia set (Przytycki). In this talk, I will explain the previous statements, and I will discuss its possible generalizations to transcendental maps (Fagella-J.).

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**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 disseminating knowledge from different branches of mathematics for those interested and promoting 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 [seminari-simba.github.io/en](https://seminari-simba.github.io/en).

If you have any doubt or comment do not hesitate to contact us by sending an email to [seminari.simba@gmail.com](mailto:seminari.simba@gmail.com).