Seminari Informal
de Matemàtiques de Barcelona

Speaker: Teo Gil Moreno de Mora Sardà.

University: Universitat Autònoma de Barcelona, Université Paris-Est Créteil.

Date: Wednesday, June 21st, 2023.

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

Place: UB (FMI aula B3) and Zoom.

Language: English.

Title: An isosystolic inequality for Finsler reversible tori and the Busemann-Hausdorff area

Abstract: In 1949, Loewner discovered a much celebrated inequality: the systole of any Riemannian torus of dimension 2 is controlled by its area. The key step in his proof was the reduction to the flat case by means of the conformal representation theorem. The generalization of this inequality to the Finsler framework results in a wide variety of results. In this talk I will survey the different known isosystolic inequalities on two-dimensional Finsler tori involving the two main notions of area in Finsler geometry: the Busemann-Hausdorff area and the Holmes-Thompson area. I will also complete the picture by presenting a new isosystolic inequality on reversible Finsler 2-tori for the Busemann-Hausdorff area, which is obtained again by reduction to the flat case. It is a joint work with Florent Balacheff.

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/`.

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