Seminari Informal
de Matemàtiques de Barcelona

***Speaker*:**	Ainoa Murillo López.
University:	Universitat de Barcelona.
Date:	Wednesday, March 29th, 2023.
Schedule:	13:00, *virtual coffee break*; 13:20, talk.
Place:	UB (FMI aula B1) and Zoom.
Language:	English.
Title:	Splitting of 2D invariant manifolds of a periodically forced 3D volume preserving flow

Abstract: We shall consider a 3D volume-preserving flow with a 2-dimensional heteroclinic connection to saddle-foci, obtained by truncating the normal form of a generic unfolding of a Hopf-Zero bifurcation. First, we will describe the phase space of the system and then, we will consider the effect of a non-autonomous periodic perturbation on it. This perturbation introduces an additional frequency, which interacts with the intrinsic frequency related to the multiplier of the foci. In particular, our focus will be on the splitting of the 2D stable and unstable invariant manifolds and its quasi-periodic asymptotic behaviour.

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*.