

# Jornada IMTech – October 25th 2024

**FME – 9:00-14:00**

## List of posters

*The posters marked with T will give a short presentation of the poster in the Poster Blitz session.*

**P1- Maria Morella i Giménez (Master MAMME) – T**

*Analytic interpretation of stratification by the Bernstein-Sato polynomial.*

Co-authors: Maria Alberich Carramiñana (UPC, IRI)

**P2- María de Leyva Elola-Olaso (Master MAMME) - T**

*Stratification of the moduli space of plane branches with a single characteristic exponent*

Co-authors: Maria Alberich Carramiñana (UPC, IRI)

**P3- Roger Gómez López (PhD DMA) - T**

*Roots of the Bernstein-Sato polynomial for plane branch deformations*

Co-authors: Guillem Blanco (KU Leuven)

**P4- Marc Torrecillas Castelló (Master MAMME) - T**

*Bernstein-Sato Polynomials of ICIS.*

Co-authors: J. Àlvarez (UPC, CRM), G. Blanco (KU Leuven)

**P5- Alexandra Lillo Escuder (PhD DMA) – T**

*Elliptic Restricted Three-Body Problem: Study of  $n$ -ejection-collision orbits.*

Co-authors: Mercè Ollé Torner (UPC-CRM), Óscar Rodríguez del Río (UPC).

**P6- Rosa Maria Delicado Moll (Master MAMME ) - T**

*Exploring the dynamics of UP and DOWN states in cortical networks undergoing short-term synaptic plasticity*

Co-authors: G. Huguet (UPC, CRM), C. Vich (UIB)

**P7- Mariona Fucho Rius (MAMME) - T**

*Studying synergistic effects in critical slowing down for mushroom bifurcations*

Co-authors: Smitha Maretvadakethope (Imperial College London), Rubén Pérez-Carrasco (Imperial College London), Àlex Haro (UB-CRM), Tomás Alarcón (ICREA-UAB-CRM), Josep Sardanyés (CRM)

**P8- Pau Blanco (UPC, CIMNE, PhD DMA) – T**

*A mathematical and computational model for self-organized collective cancer invasion*

Co-authors: Giancarlo Cicconofri, Guillermo Vilanova, Pablo Saez, Marino Arroyo.

**P9-Sheraz Ahmed Khan (UPC, CIMNE, PhD DMA) - T**

*A posteriori error estimates for the finite element approximation of the convection-diffusion equation based on the variational multiscale concept*

Co-authors: Ramon Codina, Hauke Gravenkamp

**P10-Valentina Schastliwaia (UPC,IBEC, PhD DMA) - T**

*Incorporating Physics-informed Neural Networks into Physiologically Based Pharmacokinetic Models for nanoparticle biodistribution prediction*

Co-authors: Z. Xie (IBEC), G. Battaglia (IBEC)

**P11- Luz Alberola (biblioteca FME,UPC) – T**

*Research Library Services*

Co-authors: Gemma Flaquer (UPC)

**P12- Eduard Jové (UPC,CIMNE, PhD DMA)**

*Modelling the homeostasis of intestinal organoids*

Co-authors. Marino Arroyo (UPC, CIMNE, IBEC)

**P13 -Ahmad Kamal Khan (PhD)**

*Mechanics of Cellular Configuration: Insights into Contractility and Differential Adhesive Forces*

Co-authors: José Muñoz (UPC, CIMNE)

**P14- Alfonso Garmendia**

*PB-groupoids vs VB-Groupoids*

Co-author: Francesco Cataffi