

Jornada IMTech – November 13th 2025

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- Gaspar Lloret Gutiérrez-Colón (UPC, MESIO) – T

Active power prediction to assess the effectiveness of upgrades in wind turbines: Hill of Towie Power Prediction Challenge

Co-authors: Yolanda Vidal Seguí (UPC, IMTech)

P2. Luis Álamo Rodríguez (UPC, PhD Applied Mathematics)-T

2D annular Rayleigh-Bénard convection: A Lagrangian perspective

Co-authors: Jezabel Curbelo (UPC, CRM, IMTech) and Kathrin Padberg-Gehle (Leuphana Universität Lüneburg, Germany).

P3. Carola Gatica (Universidad del Bío Bío, PhD program)-T

Dynamic Aspects of Tumor–Immune Interaction under dual Immunotherapy (Effector Cells and IL-2).

Co-authors: Claudio Vidal (Universidad del Bío Bío, Departamento de Matemática, Chile).

P4. Valentina Schastliwaia (UPC, IBEC, PhD Applied Mathematics)-T

Non-parametric analysis of endocytic patterns identifies phenotypic behaviour of endothelial membrane proteins and helps predict aging-related dynamics

Co-authors: Perarnau G.¹, Ruiz Perez L.^{2,3}, Battaglia G.^{1,4}, Gonzalez Carter D.¹

1 BarcelonaTech (UPC), Applied Mathematics Doctoral Programme

2 The Institute for Bioengineering of Catalonia (IBEC), Barcelona Institute of Science and Technology (BIST)

3 Serra Hünter (SHP) Fellow, University of Barcelona (UB), Department of Applied Physics

4 The Catalan Institution for Research and Advanced Studies (ICREA)

P5. Eduard Jove (UPC, PhD Applied Mathematics)-T

Modelling the homeostasis of intestinal organoids

Co-authors: Marino Arroyo (UPC)

P6. F Javier Rodríguez Martínez (UPC, IDIBAPS, MAMME)-T

Title: A neural circuit model for decision making in a multi-choice task

Co-authors: Balma Serrano (IDIBAPS), Alex Roxin (CRM), Jaime de la Rocha (IDIBAPS)

Gemma Huguet (UPC, CRM, IMTech)

P7. Víctor Villegas Morral (UPC, PhD Applied Mathematics) - T

Title: *Decision making in heterogeneous self-propelled particle systems*

Co-authors: Gissell Estrada-Rodriguez (UPC,CRM), Marie-Therese Wolfram (University of Warwick)

P8. Víctor Franco-Sánchez (UPC, PhD Applied Mathematics) - T

Shortest Descending Path is not Solvable Within ACM@

Co-authors: Alex Herrero (UPC), Rodrigo Silveira (UPC, Department of Mathematics)

P9. Shafaq Zahra (UPC, PhD Applied Mathematics)

Inference of Cytoskeletal Topology and Intracellular Stresses from TFM

Co-authors: Shafaq Zahra, Jose J Muñoz, Andrea Malandrino

Universitat Politècnica de Catalunya (UPC), Spain.

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Institute de Matemàtiques de la UPC(IMTech), Spain.

Johannes Kepler Univ. Linz, kepler Univ.Hospital, Dept,Orthopedics and Traumatology,Linz,Austria.

P10. Muhammad Asif Mushtaq Ahmed (UPC, PhD Applied Mathematics)

Solution of inverse problems for boundary value problems

Co-authors: Muhammad Asif Mushtaq, Jose J Muñoz

Universitat Politècnica de Catalunya (UPC), Spain.

P11. Antônio Kaique (UPC, PhD Applied Mathematics)

Rainbow Path Cover in Random Graphs

Co-authors: Fábio Botler¹, Carlos Hoppen², Walner Mendonça³, Guilherme Mota¹, Tássio Naia⁴, and Cristiane Sato⁵

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² University of Rio Grande do Sul (UFRGS), Brazil.

³ Federal University of Ceará (UFC), Brazil.

⁴ Federal University of ABC (UFABC), Brazil.

⁵ Centre de Recerca Matemàtica (CRM), Spain.

P12. Gemma Flaquer (Biblioteca FME) - T

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