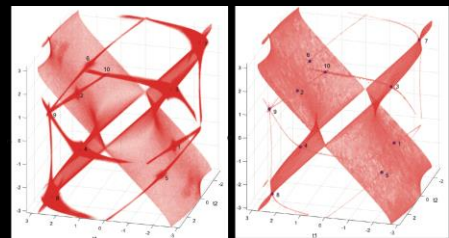
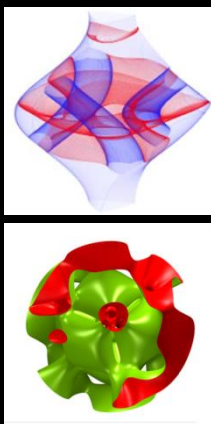


# SIMERO 2025

5<sup>th</sup> Summer School on Singularities of Mechanisms and Robotic Manipulators

<http://www.simero.org/>

The purpose of this school is to introduce key methods, milestone results, and main problems involving singularities of mechanisms and robotic manipulators.



## LECTURERS

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## TOPICS

*Generalized singularity analysis: definition, classification, and interpretation*  
- Topological and geometric analysis of singularities and mobility with  
Screw Theory and Lie Group Theory - Mechanism constraints and  
singularities, algebraic formulation - Physical singularities and relevant  
numerical methods - Monodromy for solving polynomial equations - Pure  
conditions - Clifford algebras for kinematics and geometry - Identification,  
classification and trajectory planning of cuspidal robots - Continuum parallel  
robots, kinemato-static modeling and singularities.

SIMERO 2025 will take place **September 15-19, 2025**  
in the city of **Barcelona**, near the famous Las Ramblas  
walkway, in the Gothic Quarter.

The **registration fee** includes coffee breaks, welcome  
reception, social event and gala dinner.

IFTToMM attendees: 425 € 475 € after July 31

Non-IFTToMM attendees: 475 € 525 € after July 31



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Institut de Robòtica i  
Informàtica Industrial



Ajuntament de  
Barcelona

Amb el suport  
de l'Ajuntament  
de Barcelona

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