

Marie Skłodowska Curie Action –Postdoctoral Fellowship 2023
(MSCA-PF-2023)

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Department /Institute /Centre	Name	Department of Applied Mathematics to Industrial Engineering
	Address	Ronda de Valencia 3, 28012 Madrid
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Research Area		Information Science and Engineering (ENG) Mathematics (MAT) Physics (PHY)
Brief description of the Centre/Research Group		<p>The Department of Applied Mathematics to Industrial Engineering gathers researchers with expertise in several branches of Engineering, Mathematics and Physics.</p> <p>Apart from their research, its members give courses on several subjects in Engineering Degrees, both at basic level (Calculus, Differential Equations, Numerical Methods, Linear Algebra, Probability, and Statistics), as well as at more advanced level in the Industrial Mathematics Curriculum (Partial differential equations, advanced numerical methods, mathematical models in engineering). They also teach in the newly activated degree in Mathematics of the Polytechnic University of Madrid.</p> <p>In addition, the Department finances two grants per year with the aim of attracting students that are especially interested in Mathematics and want to prepare their final degree project under the supervision of a member of the Department.</p> <p>More information on http://dmaii.etsii.upm.es/web/</p>
Project description		<p>Our research group has two active research lines. The first line is devoted to applications of fractals in Engineering and Physics. This research line has recently produced two patents and a spin-off company currently in formation. The second research line is focused on low dimensional dynamical systems. The results of this line have been a complete characterization of the orbits of bifurcation diagrams. Current research is aimed at learning about the consequences of these findings in physical systems and its relation with chaotic attractors.</p> <p>The MSC researcher, if interested, could work on one of the research lines of the scientific supervisor. He/she can also pursue his/her own research lines, possibly in collaboration with the supervisor.</p>
Applications: documents to be submitted and deadlines		Please submit a short CV, a letter of motivation and two reference letters, ideally before April 30 th 2023 to jesus.sanmartin@upm.es