

The *Mathematics and Applications to Data and Physics* group (MAD ϕ) belongs to the Instituto Universitario de Matemática Pura y Aplicada at the Universitat Politècnica de València (UPV), Spain. We are a multidisciplinary group formed by specialists in mathematics, physics, chemistry and information science doing research in different areas of mathematics and its applications in different fields, such as physics (waves in complex media and metamaterials), data science, economics and information sciences, fraud detection, market trends ... As a group, members participate in both theoretical and applied projects. The different members of the group have a great deal of experience and regularly collaborate in multidisciplinary projects that involve some of their skills, such as the development of models in Theoretical Physics, Acoustics and Mechanical Engineering, economic modelling, indexing, artificial intelligence, data analysis, economics, soccer....

With respect to the teaching, several members of the group are lecturers of the Master Interuniversitario de Investigación Matemática, where they teach the contents related to Machine Learning, Artificial Neural Networks and Deep Learning and Genetic Algorithms and Optimization.

We offer positions to research in the following areas:

- Acoustic and vibrations for the development of metamaterials and correlated media for the control of waves.
- Analysis and development of models for data related to soccer.
- Machine Learning applied to Medical Imaging.
- Research in functional analysis, more precisely, metric spaces of functions and Lipschitz Extensions in Machine Learning Models.

At this moment, the groups have different project from Spanish government and European Union and a Partnership agreement with a soccer club (*Levante UD*, a *Primera Division* club of *LaLiga*).

The candidates will be integrated in one or more research lines. For more information

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