The research project “Development, analysis, and efficient implementation of high order numerical method for simplified fluid models with data uncertainty” is seeking young, highly motivated researchers with good formation in applied mathematics (mathematicians, physicists, engineers), who meet the following requirements:
-Very good ability for team work and learning.
-A master degree in mathematics (engineering or physics might also be considered).
-High level of proficiency in English, French or Spanish.
-Special interest in the fields of numerical analysis and scientific computing.

The pre-doctoral contracts are funded by the Spanish Government, within the research projects: Development, analysis, and efficient implementation of high order numerical methods for simplified fluid models with data uncertainty (I and II).

The ultimate aim of this project is the develppment of efficient geophysical flow simulators that are expected to become useful tools to model river and channel flows, marine currents, sedimentation/ erosion processes, turbidity currents, etc. These tools play a fundamental role in operational forecasting and risk management in natural hazards, as floods, avalanches, tsunami waves, etc. To achieve this goal, simplified depth-integrated flow models will be considered whose mathematical form are nonlinear hyperbolic PDE systems that may include source terms and/or nonconservative products.

Interested candidates are requested to send their CV to

Prof. Enrique D. Fernández-Nieto, edofer@us.es.