Annex 1

Position 1

Scientific Area of SISSA: Mathematics

Smart specialisation strategy areas (S3) of Friuli Venezia Giulia and their development trajectories: Strategic production chains, industry engineering: technologies for the numerical modelling of processes and products and/or methods and technologies for integrated design and/or intelligent machines

Area: 01 – Mathematics and information technology sciences
Competition sector: 01/A5 Numerical analysis and 08/B2 Construction sciences
Relevant academic scientific sector: MAT/08 Numerical analysis and ICAR/08 Construction sciences

Scientific responsible: Prof. Gianluigi Rozza

Duration of the fellowship: 24 months

Foreseen starting date of the activity: 16/05/2017

Gross annual fellowship: € 24,336

Requisites: Degree in Mathematics, Physics, Mechanical, Aerospace, Aeronautical, Mathematical, Civil, Nuclear Engineering or similar subjects.
Experience in numerical and mathematical modelling for fluid dynamics, simulation of complex systems and scientific calculus in Multiphysics, fluid-structure interaction, numerical fluid dynamics, controlling, parametrization and optimization, computational complexity reduction methods. Advanced programming.
Usage of open-source libraries for finite volumes.
A PhD in Applied Mathematics or Engineering will be considered as an asset.

Gross total cost of the research fellowship € 59,520: shall be funded by project HEaD – HIGHER EDUCATION AND DEVELOPMENT SISSA OPERATION 1 (FP1619889002), approved with decree of the autonomous region Friuli Venezia Giulia n. 2242 dated 11.04.2016 for the exclusive scope of the project funding the research fellowship.
Evaluation criteria:

PhD (evaluated as an asset): max 10 points

University degree: max 5 points

Published works and other research products: max 25 points

Other postgraduate degrees: max 5 points

Other titles: max 15 points

Research project: max 40 points