




Company Description

The Basque Center for Applied Mathematics - BCAM is an international research centre in the field of Applied Mathematics that was founded in 2008 by the Basque Government, the UVP/EHU and Ikerbasque. It also has the support of the Provincial Council of Bizkaia and Innobasque. It has a staff of more than 90 researchers of 25 nationalities working in various areas, from data science to mathematical modelling, and has twice been accredited as a centre of excellence "Severo Ochoa" by the State Research Agency, a distinction awarded to the best research institutions in the world in their field. www.bcamath.org

Information

 Deadline: 2019-09-13
 Category: Business
 Province: Bizkaia

 Country: Basque Country
 City: Bilbao

Company

BCAM



Main functions, requisites & benefits

Main functions

This project deals with the multiscale simulation of complex fluids/materials using data-driven closure models obtained through active learning techniques. In particular, the governing equations describing the macroscopic flow of complex fluids - such as polymer-colloidal suspensions etc - generally involve a significant degree of physical approximations, which make continuum constitutive models valid only in a limited subclass of flows. More info: <http://www.bcamath.org/en/research/job/postdoctoral-fellowship-in-cfd-modelling-and-simulation-multiscale-particle-simulations-in-fluid-dynamics-using-machine-learning-techniques>

Requisites

Applicants must have their PhD completed before the contract starts. PhD degree preferable in Physics, Applied Mathematics, Computer Science. Background in fluid mechanics, rheology, particulate systems or complex fluids. Experience in Machine Learning algorithms. Experience in modelling and simulation of multiphase flows using meshless particle methods such as smoothed particle hydrodynamics (SPH), dissipative particle dynamics (DPD) or Molecular Dynamics (MD). Knowledge of C/C++ or Fortran programming languages is required. Experience in parallel programming for HPC is desirable.

Benefits

The gross annual salary of the Fellowship will be 28.000 - 32.000€. There is a moving allowance for those researchers that come from a research institution outside the Basque Country from EUR 1.000 to EUR 2.000 gross.

