Job/Fellowship Reference: C2008-UL-CMAF-2

Main research field: Mathematics

Sub research field: Applied Mathematics/ Mathematical Analysis

Job summary:

The Centre for Mathematics and Fundamental Applications (CMAF) at the University of Lisbon invites applications for one 5-year research position in Dynamical Systems and Partial Differential Equations.

The successful applicant is expected to collaborate with the local team. Although there are no teaching duties associated with this position, the candidate may be asked to collaborate in post-graduate training.

Job description:

University of Lisbon

Applied Mathematics/ Mathematical Analysis

The present call invites applications for one 5-year research position in Dynamical Systems and Partial Differential Equations. The scientific goal for the position holder will be the study of at least one of the following subjects:

i) dynamical systems modeling real non-trivial phenomena, usually known as chaotic dynamical systems. The position holder is expected to contribute for a better understanding of the complexity of such dynamical systems via the study of topological invariants; in this framework, knowledge of such areas as Ergodic Theory and Dimension Theory is required;
ii) local and global properties of some ordinary and partial differential operators on manifolds arising in geometry and physics. Topics of great interest are the search of homoclinic and heteroclinic orbits in ODEs and the study of systems of elliptic equations; knowledge of Index Theories is required here.

In particular, to have published relevant work related to index theories (Morse, Maslov, spectral flow, etc) and invariants for dynamical systems (entropy, Lyapounov exponents, Hausdorff dimension, Floer homology, etc) will be welcome.

The centre is located at the Interdisciplinary Complex (http://www.ciul.ul.pt) that combines basic research in mathematics and physics with a strategy to apply quantitative approaches to other disciplines.

The post holder will join an existing team (http://cmaf.ptmat.fc.ul.pt/membros/group-5.html) working in nonlinear analysis and topological methods in dynamical systems and in partial differential equations, and will be encouraged to initiate his/her own projects.

The candidate may be asked to collaborate in post-graduate training.

Applicants must have a PhD in Mathematics and a strong research program. At least three years of post-doctoral research experience would be desirable.

The selection of candidates will take place by early October. The report of the jury and the documents concerning the selected candidate will then be submitted to Fundação para a Ciência e a Tecnologia for final approval of the contract.

The position is sponsored by the Ministry of Science of Portugal under the doctoral job offers program "Ciência 2008".

In order to apply, please send a motivation letter, cv and research plan, and three letters of recommendation to:

 cmaf@ptmat.fc.ul.pt

 For more information about Centro de Matemática e Aplicações Fundamentais visit http://cmaf.ptmat.fc.ul.pt/

Please refer to job reference in all application materials.

Application deadline: 10 September 2008

5-year position, base salary: 43k€ (annual)

Candidates should have a minimum of 3 years postdoctoral research experience. In exceptional cases, duly justified, FCT may consider accepting applicants with less than 3 years of post-doctoral experience. The jury reserves the right not to fulfil the posts in the absence of qualified applications.

Please note: The funding for this call and the final appointment of these positions are dependent on the approval from Fundação para a Ciência e a Tecnologia of the pre-selected candidates proposed by the University of Lisbon.

For more job opportunities in the University of Lisbon, please consult
CIÊNCIA 2008/PostDoctoral positions www.ul.pt