



CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

Six Post-Doctoral research Fellowships

Six Post-Doctoral research Fellowships are open at the **Fundação da Faculdade de Ciências da Universidade de Lisboa, F.P. (FFCUL)**, for the project/R&D institution “Centro de Matemática, Aplicações Fundamentais e Investigação Operacional (CMAF-CIO)”; MAT/04561, with financial support provided by the FCT/MEC through National funds and co-funded by FEDER under the PT2020 agreement, when applicable, under the following conditions:

1. **Scientific Area:**

- I. Mathematical Logic
- II. Dynamical Systems
- III. Partial Differential Equations
- IV. Geometry
- V. Stochastic Analysis and Mathematical Physics
- VI. Mathematical Biology

2. **Requirements for admission:** PhD in Mathematics (or related area with strong mathematical component) completed after 31 December 2013 (for the area of Mathematical Logic) or after 31 December 2011 (for the remaining areas) and research experience in the area to which the candidate applies. Good knowledge of written and spoken English. It is expected that applicants are willing to work in a team and possess good communication skills.

3. **Work plan:** the candidate shall submit a research project that matches the research carried out at CMAF-CIO in the selected area, see <http://cmafcio.campus.ciencias.ulisboa.pt/node/7>.

Here is a list of some specific topics of current interest in the Center, which candidates may wish to consider: regular and chaotic behaviour in the dynamics of Hamiltonian systems; symplectomorphisms and in particular area preserving maps; regularity properties of the Lyapunov exponents and Oseledts decomposition on classes of linear cocycles; dynamical systems and stochastic processes applied to epidemiology; kinetic theory, stochastic evolution and applied nonlinear dynamics; D-modules and singularities; relative D-modules and relative perverse sheaves; harmonic maps and submanifolds; harmonic maps from a Riemann surface to a Lie group or symmetric spaces, and isometric immersions; PDEs set in locally Euclidian manifolds; free boundary problems; constrained distributed systems; analysis of phase transitions and surface phenomena; variational problems and multiscale homogenisation; homogenisation in elastic bodies with dislocations; numerical analysis related to homogenisation theory; challenges in functional analysis and in geometric measure theory arising from the modeling of material and natural sciences.

4. **Legislation framework:** A fellowship contract will be celebrated according to the regulations defined by FCT “Regulations for Advanced Training and Qualification of Human Resources”, in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of 9 July; And also by the FCT, I.P. Fellowships Regulation, in force (<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>) and FFCUL’s Fellowship Regulation, as approved on 22nd December 2014.

5. **Place of work:** The work will be developed at CMAF-CIO within the research group more directly concerned with the subject of the research plan, and, depending on the topic, under the scientific guidance of one of the following senior researchers: Cristian Barbarosie, Eric Carlen, M. C. Carvalho, Pedro Duarte, Mário Edmundo, Teresa Monteiro Fernandes, Fernando Ferreira, Maria João Ferreira, João Rasga, José Francisco Rodrigues, Cristina Sernadas, Nico Stollenwerk, Anca-Maria Toader, Nicolas Van Goethem, R. Vilela Mendes.



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6. **Fellowship duration:** The initial contract will be for 12 months, renewable for another 4 months on mutual agreement, and possibly extended. The expected starting date is September 1, 2016 though some flexibility may be possible, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P., in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.

The fellowship contract cannot be renewed beyond the end of the project.

7. **Monthly allowance:** The fellowship amounts to € 1.495, according to table values of the fellowships awarded directly by the FCT, IP. (<http://www.fct.pt/apoios/bolsas/valores>).

The fellowship holder will have a personal accident insurance and, if not covered by any social protection scheme, can ensure the right to social security through adherence to the voluntary social insurance scheme, pursuant to Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social.

The fellowship will be paid monthly by bank transfer.

8. **Selection method:** Candidates will be assessed by the quality of their CV (50%), quality of research proposal (30%) and matching of the proposal with host research activity (20%) During the selection procedure, candidates may be asked to be interviewed (possibly via conference call).

9. **Selection Committee:** Chairman: José Francisco Rodrigues; Member 1: Fernando Ferreira; Member 2: Teresa Monteiro Fernandes; Member 3: M. Conceição Carvalho; Member 4: Nico Stollenwerk.

10. **Publication/notification of results:** The results of the evaluation will be made public by mid July through the final ranking of candidates, which will be posted at the entrance hall of the FFCUL, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bdg – 3rd floor, Campo Grande, 1749-016 Lisboa. The candidates will be notified by e-mail as well.

11. **Deadlines:** This call for applications is open from 25 May to 24 June 2016.

12. **Application:** Applications may be sent via e-mail to cmafcio@ciencias.ulisboa.pt by attaching the following documents: Curriculum vitae including list of publications (max 3 pages), copy of PhD certificate, motivation letter (1 page), research plan (max 4 pages). In addition two reference letters from senior researchers must be sent directly to the same e-mail address. Documents must be named as cv.name.surname.cmafcio, phd.name.surname.cmafcio, letter.name.surname.cmafcio, rp.name.surname.cmafcio .