

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

### One post-doctoral fellowship

One post-doctoral fellowship is open at the **FCiências.ID – Associação para a Investigação e o Desenvolvimento de Ciências**, within the scope of the project “Extremal spectral quantities and related problems” PTDC/MAT-CAL/4334/2014, financed by national funds by FCT/ MCTES (PIDDAC) under the *Programme for All Scientific Domains*, under the following conditions:

1. **Scientific Area** Mathematics
2. **Requirements for admission:** Candidates should have obtained a PhD degree in an area related to the project topics, namely, spectral theory of the Laplace and related operators; the date of the PhD should be after the first of January 2016.
3. **Preferential factors** It will be considered a preferential factor having done the PhD thesis or having published articles that are directly related to the work plan described in the next point.
4. **Work plan:** Successful candidates are expected to develop their work in the area of the optimisation of eigenvalues of the Laplace and related operators, such as the bi-Laplacian, self-adjoint perturbations and non-self-adjoint perturbations, etc. More specifically, the problems to be considered will be related to low eigenvalues with different boundary conditions, the asymptotic behaviour of optimisers in the high-frequencies optimisation of functional determinants and the distribution of eigenvalues.
5. **Legislation framework:** Statute of the Scientific Research Fellowship, 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 **FCiências.ID** Fellowship Regulation, as approved on 23<sup>rd</sup> February 2017.
6. **Place of work:** The work will be developed at the Group of Mathematical Physics of the Faculty of Sciences of the University of Lisbon under the scientific supervision of Professor Pedro Freitas.
7. **Fellowship duration:** This position is initially opened for 6 months and will begin no later than December 2017. The fellowship contract may be renewed until 14<sup>th</sup> May 2019, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.
8. **Monthly allowance:** The fellowship amounts to € 1495 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. It will also include installation and travel subsidies in agreement with FCT regulations.
9. **Selection method:** Candidates will be assessed by the quality of their CV (100%)

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10. **Selection Committee:** Pedro Freitas (GFM, President) Nuno Dias (GFM) and João Prata (GFM); Ana Bela Cruzeiro (GFM).
11. **Publication/notification of results:** The final results of the evaluation will become public, through ordered list *final grade obtained* which will be posted at the entrance hall of the **FCiências.ID**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bdg – 3<sup>rd</sup> floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by *e-mail*.
12. **Deadlines:** This call for applications is open from 7<sup>th</sup> to 20<sup>th</sup> November 2017.
13. **Application:** Applications may be sent via e-mail to [psfreitas@fc.ul.pt](mailto:psfreitas@fc.ul.pt) and should include the following documents: Curriculum vitae (including the list of publications), pdf files with the publications and a copy of the PhD thesis together with a PhD certificate.