

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

### One Research Fellowship for Doctor

One Research Fellowship for Doctor is open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D SchroMoka – Schroedinger problem and Optimal Transport: a multidisciplinary perspective, PTDC/MAT-STA/28812/2007, financed by national funds by FCT / MCTES (PIDDAC) under the Programme All Scientific Domains, under the following conditions:

1. **Scientific Area:** Mathematics
2. **Requirements for admission:** *PhD in Mathematics (or Mathematical Physics)*
3. **Factors preferred:** PhD obtained after January 2014
4. **Work plan:** Generalization of the Schroedinger Problem and its initial probabilistic solution to the analogous case of mixed quantum states, i.e. much more general evolution scenarios between arbitrary probabilistic data; Numerical analysis and simulation of those dynamics required in all cases; Construction of a notion of Stochastic Integrability; Fluid Dynamics, where the Navier-Stokes equation is interpreted as a stochastic deformation of the Euler equation; Investigation of connections with the Benamou-Brenier approach, with particular emphasis on symmetries of the former equations.
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 (<https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT.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 *University of Lisbon* under the scientific guidance of Professor Jean-Claude Zambrini.
7. **Fellowship duration:** This position is initially opened for 6 months and is expected to begin in December 2019 or January 2020. The fellowship contract may be renewed for 18 more months, 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 € 1.509,80, 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.
9. **Selection method:** *Candidates will be assessed by the quality of their CV (60%), proximity with the subject of the project (30%), letters of recommendation (10 %).*
10. **Selection Committee:** *Professors Jean-Claude Zambrini (President), Ana Bela Cruzeiro (member) Christian Léonard (member), Davide Masoero (alternate member)*
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

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

Universidade de Lisboa, C1 bldg – 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 16/09/2019 to 31/12/2019.

13. **Application:** Applications may be sent via e-mail to [jczambrini@fc.ul.pt](mailto:jczambrini@fc.ul.pt), by attaching the following documents: Curriculum Vitae, PhD thesis abstract, Research statement (1 page) and 2 letters of recommendation.

**NOTE:** Please note that Degrees obtained in foreign countries need a Portuguese Recognition certificate issued by a Portuguese high degree Institution, according to the [Decree-Law nr. 66/2018](#), of august 16<sup>th</sup> and the [Ministerial Order nr. 33/2019](#), of January 25<sup>th</sup>. The presentation of such certificates is mandatory for contract signature. More information can be obtained in: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.