



Laboratório de Instrumentação e Física Experimental de Partículas

Research Fellowship

In the framework of the H2020 AHEAD Project

The Coimbra branch of LIP (Laboratório de Instrumentação e Física Experimental de Partículas) offers a research fellowship within the project **H2020 AHEAD** (Activities in the High Energy Astrophysics Domain, project ref. 654215) financed by the European Commission (<http://ahead.iaps.inaf.it/>). AHEAD's main objective is to integrate and coordinate national efforts in high-energy astrophysics. LIP is a partner of AHEAD WP9 (Work Package 9) dedicated to the "Assessment of gamma-ray experiments". ESA mission calls are highly competitive and it is therefore crucial to present mature proposals in order to improve their chances of approval. AHEAD WP9 will develop tools for the gamma-ray community that enable performance evaluation of solutions in view of the selection and further development of an instrument concept based on state of the art technologies.

The conditions are the following:

1. Main Research Area: Physics

2. Specific Research Area: Astrophysics

3. Number of fellowships: 1

4. Profile: The applicant should have a Masters or PhD degree in Physics, Physics Engineering, Nuclear Physics or Astrophysics. Candidates should have experience in programming and it is considered an advantage if they have experience with simulation tools such as GEANT4 or MEGALIB. The successful applicant will take part of the team responsible for the simulation of the e-ASTROGAM mission mass model in the framework of the AHEAD WP9. This research work will be coordinated with another research work hired and supervised by our WP9 group team partner of INFN Roma, Italy.

5. Place of work: LIP Coimbra, Department of Physics of the University of Coimbra, Rua Larga, Coimbra, Portugal.

6. Duration: 6 months, starting not before the **3rd of January 2018**, following the regulations of the FCT <http://www.fct.mctes.pt/pt/apoios/formacao/ambitoprojectos> and the internal LIP rules for fellowships, renewable up to 12 months.



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7. Scientific supervision: Rui Miguel Curado da Silva (PhD), LIP, Department of Physics of the University of Coimbra, Portugal.

8. Selection and attribution criteria: Curriculum vitae (40%), profile adequacy including previous research experience (40%) and interview (20%). Preference will be given to candidates with experience in simulation tools such as GEANT4 or MEGALIB, whose profile compliance with the project requirements and experience in the specific scientific area of the project is considered suitable, along with motivation, autonomy and good interview presence.

9. Salary: The payment will follow the reference table for FCT fellowships within Portugal. This can be found at <https://www.fct.pt/apoios/bolsas/valores.phtml.en>

10. Formalization of application: Applications must be formalized, necessarily, by submitting the following documents: Curriculum Vitae, letter of motivation, one letter of reference, copy of PhD's certificate and/or other documents the candidate may consider relevant to his/her application, between the dates of **15th December 2017 to 1st January 2018, at 23:59h** to the email bolsas@coimbra.lip.pt

11. Selection Panel: Doctor Rui Curado Silva (LIP), Professor Filomena Santos (LIP) and Professor Jorge Maia (LIP).

