

**Announcement: research fellowship in Low-Temperature Plasma Physics  
for holders of MSc degrees  
BI/FIS/2015**

Applications are invited for a research position in Low-Temperature Plasma Physics at University of Madeira for holders of MSc degrees in the framework of the activities of the Physics Group of the Faculty of Exact Sciences and Engineering of University of Madeira. The work will be conducted in the Physics Group of the Faculty of Exact Sciences and Engineering of University of Madeira, <http://fisica.uma.pt>. The group is an active research unit in the field of low-temperature plasmas with vast international connections, an extensive research output, and a large number of peer-reviewed publications. The group is internationally renowned for its work on modelling of gas discharges, in particular, multiple modes of current transfer to electrodes of glow and arc discharges. The project is dedicated to theory and modelling of plasma-cathode interaction in high-current arc discharges, a highly exciting and challenging multidisciplinary field.

**Scientific Area:** Numerical simulation of gas discharges.

**Admission requirements:** Master degree in Physics, Engineering Physics or similar; strong dedication to teamwork; proficiency in spoken and written English. Preferential conditions: Master degree in Plasma Physics and/or previous experience in modelling of gas discharges and/or with COMSOL Multiphysics.

**Work plan:** Research, by means of advanced numerical simulation, of plasma-cathode interaction in high-current arc discharges in the framework of the activities of the Physics Group of the Faculty of Exact Sciences and Engineering of University of Madeira.

**Applicable legislation and regulations:** Law n.º 40/2004, of 18th August (Estatuto do Bolseiro de Investigação Científica); Regulations for Research Grants of the Foundation for Science and Technology I.P.; Regulations for Research Grants of the University of Madeira.

**Funding:** The fellowship will be funded by the budget with own funding of the University of Madeira.

**Work place:** Work will be conducted at Campus da Penteada, Funchal, in the facilities of the Physics Group of the Center of Exact Sciences and Engineering of University of Madeira under the supervision of Prof. Mikhail Benilov and Prof. Mário Cunha.

**Grant length:** The initial contract will have duration of twelve months with the possibility of renewal.

**Value of monthly maintenance allowance:** The monthly maintenance stipend is 980€, according to the regulations of the Foundation for Science and Technology I.P., <http://www.fct.pt/apoios/bolsas/valores.phtml.en>.

**Selection method:** The assessment of the curricula vitae of the candidates.



**Jury composition:** Professor Mikhail Benilov (president), Professor Mário Dionísio Cunha (effective member), Professor Pedro Jorge Gomes Camacho de Almeida (effective member), Professor José Gabriel Lira Gomes (substitute member).

**Notification of results:** Final results shall be published in the internet page of the Physics Group of University of Madeira (<http://fisica.uma.pt/>) in the form of an ordered list. The selected candidates shall be notified by email.

**Application:** Application will be open from 01<sup>st</sup> to 15<sup>th</sup> of December 2015, 17:30 (Greenwich Mean Time).

Application must be formalized by means of an application letter accompanied by the following documents:

- \* Indication of availability from January 1st, 2016 on a full-time basis;
- \* Copy of identification document;
- \* The degree of Master's certificate;
- \* Detailed Curriculum Vitae;
- \* Recommendation letter(s);
- \* Relevant document on the professional situation indicating the nature of the employment relationship, position and number of teaching hours on an annual average (if applicable); this document may be replaced by an affidavit, in case there is no other professional activity or provision of services.

The application letter and supporting documents must be sent by email to Professor Mário Cunha, [mario@uma.pt](mailto:mario@uma.pt), with the subject "Research fellowship in numerical simulation of gas discharges".