

Short summary of the call for a fixed-term researcher position (332.1_RIC.ISTP)

This document shortly summarizes the 332.1_RIC.ISTP call for a fixed-term researcher position funded within the FIS2 Starting Grant “PhAse-sPAce cOMplexity in turbulent nearly-reversible plasmas (PAPAO)” project. The official call is in Italian and contains all the necessary and detailed information to apply for the position. The main goal of the present document is to facilitate the application from non-Italian candidates, but it should not be intended in any case as an official translation of the call.

Position detail: Fixed-term researcher.

Duration: One year. The contract can be extended but the duration of the contract, including any extensions, cannot exceed the duration of the project itself, and in any case, three years. The project, whose end is foreseen for Oct 2028, has in any case financial availability to extend the position.

Institute: Istituto per la Scienza e Tecnologia dei Plasmi, SDL Tor Vergata - ROMA, Area della Ricerca di Tor Vergata, Via del Fosso del Cavaliere, 100

Main topic and research activity: Kinetic-scale dynamics of space plasmas by means of Eulerian Vlasov-Maxwell simulations. Particular attention will be paid to the study of turbulence and magnetic reconnection and their impact on energy conversion and dissipation, plasma heating, particle energization, and the creation of non-equilibrium plasmas.

Requirements: Some formal requirements are needed to apply for the position, including citizenship (Art. 2.1.a), master degree (Art. 2.1.f), Ph.D. (Art. 2.1.g), and Italian language knowledge (Art. 2.1.i). Concerning the master degree, when it is achieved abroad, candidates are admitted with reservation to the evaluation procedure. In case of position award, they must present to the Italian Ministry of University and Research the application of recognition (“equivalence”) of their foreign qualification within 15 days of the publication of the final ranking. Candidates in possession of a declaration of equipollence, released by Italian universities, are also eligible for the selection process.

To be eligible for the selection process, the Ph.D. or at least three years of research experience after the Master degree in the following scientific areas that generally belong to plasma physics are also necessary. i) Dynamics of the solar wind and energetic particles (solar energetic particles); ii) Dynamics of the Earth's magnetosphere; iii) Study of basic plasma physics processes such as turbulence, magnetic reconnection, energy conversion and dissipation, heating mechanisms, and particle acceleration in space and astrophysical plasmas; iv) Theoretical and numerical modeling of space and astrophysical plasmas; v) Analysis of experimental measurements obtained by in-situ satellites in the heliosphere. Preference is given to the study of basic plasma physics processes in space and astrophysical environments and, in particular, the creation of thermal non-equilibrium states in such environments, through numerical and theoretical modeling of such systems.

Application: The application must be compiled through the online system (Art. 3 and Art. 4) within 30 days from the day after the publication day of the call. The registration to the online portal is needed. Beyond the fundamental information specified at Art. 4, the candidates have to include the identity document and the curriculum vitae and studiorum (CV). Some indications concerning the CV are given in Art. 6. In particular, when possible, all the information necessary for the evaluation of qualifications (e.g., document references, date, identification number if present, links, the natural or legal person who issued the document, etc.) should be included in the CV. All useful information for the evaluation of the CV (e.g., nature and duration of the assignment and/or activity performed, functions, experience, role held by the candidate, etc.) should be specified as well.

Evaluation: The committee will evaluate the CV (30 points) and the oral interview (60 points). Candidates admitted to the interview will receive a notice at least 15 days before the interview.