



## The ATLAS Experiment Group at the University and INFN Rome Tor Vergata has an opening for a Postdoctoral Research Associate Position

The University and INFN Rome Tor Vergata group contributed to the design and construction of the Resistive Plate Chambers of the ATLAS Detector and to the front-end electronics of the ATLAS muon system. Current interests and activities include operations and upgrades of the TDAQ and Muon systems and data analyses on the physics of Top Quarks, Standard Model and beyond, B and Light States, and Higgs boson. The Postdoctoral Research Associate (RA) will be expected to contribute to the measurement of the properties of symmetry (C,P,T) of the top quark and of the b-quark from the top quark decay using data from the ATLAS experiment, and to support the operations of the Trigger-DAQ system of the experiment. In particular, s/he will work on the development and testing of Machine Learning algorithms for the separation signal-background and the correct event reconstruction in top quark events (pair and singlet modes), the measurement of the CP violation in B from the top quark decay and tests of CPT symmetry and Lorentz Invariance in the top quark.

The RA contract will be full-time for the duration of **3 years (RTDa-L240/2010)** and the selected candidate will be based at the Department of Physics of the University of Rome Tor Vergata, with the expectation of frequent travel to CERN for short or extended period of times. Payment is according to the salary level for the specified contract type in the national pay scale (\*). Teaching duties may involve support in the undergraduate course of Particle Physics and/or in the Laboratory courses of the Bachelor and Master's degree programmes. The University of Rome Tor Vergata is an equal opportunity employer. The contract is jointly funded by the University of Rome Tor Vergata and INFN.

Applicants should hold a *Dottorato di Ricerca in Fisica* title or equivalent title (Ph.D.) gained abroad (\*\*), and knowledge of the English (C1 level) and adequate knowledge of the Italian languages is required.

The application deadline is **30 days from the official call publication date** (the call publication is expected in late May-June 2023 on the university's jobs portal). Applicants will be required to submit the application documents to the online portal indicated in the official call, including a list of 12 publications before the application deadline. A minimum of 6 selected candidates will be called for interview with a notification of at least 20 days prior to the interview date. The selection of the candidates will be based on the evaluation of the documents sent with the application and on the interview. The interview will focus on the candidate's own research, curriculum and publications.

For further information please contact **prof. Lucio Cerrito, [lucio.cerrito@uniroma2.it](mailto:lucio.cerrito@uniroma2.it)**

(\*): Research staff returning to Italy after working abroad might be entitled to significant tax-free allowances.

(\*\*): PhD's awarded abroad need to be certified equivalent to the Italian *dottorato di ricerca* degree and the equivalence application may need to be submitted before the call deadline.