

Postdoctoral Position – CMS

São Paulo, Brazil

Full-time

The São Paulo Research and Analysis Center (SPRACE) is opening postdoctoral positions for outstanding research fellows to work in association with the Unesp group on the Compact Muon Solenoid (CMS) experiment of the CERN Large Hadron Collider (LHC). Grant funds are provided by FAPESP, the São Paulo Research Foundation.

The SPRACE research team is engaged in two CMS physics analysis groups: Exotic physics (Beyond the Standard Model) and Heavy Ion physics. SPRACE also operates a WLCG Tier-2 cluster and is responsible for the implementation of a state-wide grid infrastructure, GridUNESP, which serves more than 100 research groups from different scientific communities. SPRACE is also involved in R&D activities on the conceptual design, simulation and proof-of-concept of the data acquisition (DAQ) electronics of the outer tracker detector of the CMS experiment.

The positions

We are opening different Postdoc positions and the successful applicant is expected to get involved in:

- Data analysis activities of SPRACE either in dark matter searches or high-density nuclear matter research within the CMS Experiment, or
- DAQ Systems for Particle Detectors in HEP Experiments.

The candidates directly involved in the CMS experiment are expected to have a Ph.D. in Experimental High Energy Physics. A previous experience in one of the LHC experiments is an important asset. She/he should have the ability to carry out independent research in HEP and carry out physics analyses related to those of interests to the SPRACE group, and must,

- Help to comply with our responsibilities in the collaboration.
- Interact with different HEP groups worldwide.
- Travel to CERN (whenever possible) to work on site.
- Support and advise interns and students in the project.

Requirements

The applicants must have:

- Strong motivation to participate in challenging projects and actively develop a research program on physics analysis.
- Ability to work in a targeted, structured, and productive manner in a multi-disciplinary team.
- Excellent communication skills.

Appointment Period

These appointments are initially for 2 (two) years, and could be extended depending on the results of midterm evaluation carried out by a committee from the funding agency. The target start date is **August 1st, 2024**.

Payment and Other Advantages

The monthly income is fixed by FAPESP and nowadays is R\$ 9.047,40. In addition to the income, the candidate will receive:

- Travel ticket to/from São Paulo.
- Installation aid corresponding to one month of salary.
- 15% of the yearly income to cover expenses with traveling, participation in conferences, equipment, etc.

How to apply

SPRACE is committed to the principles of equal opportunity and affirmative action. Applications from any sexual orientation and members of minority groups are encouraged.

Please provide an application letter, résumé of work experience, and at least two letters of recommendation to cms@sprace.org.br.

Deadline for application

The applications will be reviewed until the position is filled (open until filled), but we encourage the candidates to send their applications until **May 15th 2024**. Only shortlisted candidates will be contacted. Shortlisted candidates must be available for a videoconference interview where we expect a short presentation on the previous achievements and proposed research plan.