Experimental High Energy Physics

SPRACE, São Paulo, Brazil

Deadline: 31 August 2014

The São Paulo Research and Analysis Center (SPRACE) is opening two 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 facility and is responsible for the implementation of a state-wide grid infrastructure, GridUNESP, which serves more than 50 research groups from different scientific communities. SPRACE is now starting R&D activities on the conceptual design, simulation and proof-of-concept of a Level 1 trigger for the tracking detector of the CMS experiment.

The position

The successful applicant is expected to:

- take a leading role in the data analysis activities of SPRACE
- help to comply with our responsibilities in the collaboration
- participate in the R&D for the CMS upgrade
- interact with different HEP groups worldwide
- travel regularly to CERN and/or LPC at Fermilab to work on site
- support and advise interns and students of the project

Requirements

Applicants 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. He/she 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.

The applicants must have:

- strong motivation to participate in challenging projects and actively develop a research program on physics analysis
- experience in HEP data analysis and interest on instrumentation
- ability to work in a targeted, structured, and productive manner in a multi-disciplinary team
- excellent communication skills
Appointment

These appointments are initially for 2 years and could be extended up to 4 years, depending on the results of midterm evaluation carried out by a committee from the funding agency.

The position is based in São Paulo but we expect that the candidate travel often to CERN and/or LPC at Fermilab. The candidate could also to spend a whole year in those locations.

Payment and Other Advantages

The monthly income is fixed by FAPESP and corresponds to a yearly income of about USD 33,500.00 (tax exempt). 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, which is equivalent to USD 5,000.00, to cover expenses with traveling, participation in conferences, equipment, etc.

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

How to apply

Please provide an application letter, résumé of work experience, and at least two letters of recommendation to:

- Sérgio F. Novaes
- Sergio.Novaes@cern.ch

Deadline for application

The deadline is 31 August 2014. We reserve the right not to make an immediate appointment and continue searching after the closing date. Only shortlisted candidates will be contacted. Shortlisted candidates must be available for an interview where we expect a short presentation on the previous achievements and proposed research plan.