



Open faculty position in Theoretical Physics

São Carlos Institute of Physics,
University of São Paulo

About the position

The Department of Physics and Materials Science, at the São Carlos Institute of Physics, is seeking to make one faculty appointment for a theoretician in the area of atomic and molecular physics: light-matter interaction, out-of-equilibrium scattering processes, optical lattices with extensions to statistical physics.

The selection process is governed by the University's and Institute's bylaws. The official documents describing the rules of the process is Edital ATAc/IFSC-07/2017 and the respective bylaws. This is an explanatory translation and not a legal document: while the layout follows the Edital, the subtopics have been reorganized and the presentation simplified.

The position to be filled corresponds to that of tenure-track* assistant professor in US universities (Professor Doutor 1 (MS-3.1), full-time (RDIDP)). (*There is a so-called 'probative' period of 6 years, after which tenure is usually granted.) The initial salary, as of Nov/2013 is R\$ 10.670,76 (and 13.3 times this value is paid per annum; there are other benefits which bring the yearly salary to close to 142K BRL).



All faculty members of the São Carlos Institute of Physics are expected to conduct their own research and to teach one course every semester (which means 4-6 hours spent in class per week).

The current members of the Theoretical Physics Group are listed [here](#).

How to apply

Applications should be submitted between May 12th and July 10th, 2017.

Applications should be presented exclusively by the link <https://uspdigital.usp.br/gr/admissao?lng=en>. The cover letter should be addressed to the Director of IFSC-USP requesting participation according to [Edital ATAc/IFSC-07/2017](#). It should provide full mail and email addresses, as well as phone numbers and other means of contact. The following documents should be included:

- I. A cover letter addressed to the Director of IFSC-USP requesting participation and including the information mentioned above. It should also state the language the candidate wishes to be examined in (Portuguese or English).
- II. Certificate of a doctoral degree issued by USP or recognized by USP or recognized as valid in Brazil. A candidate whose PhD title has not undergone a local validation process should start the process and state this in the cover letter. The validation is done by sending a copy of the doctoral dissertation and diploma, plus a letter requesting that it be recognized by USP, to the “Comissão de Pós-Graduação” with the USP-São Carlos address.
- III. Extended CV describing published work, all activities pertaining to the position (such as teaching experience, including courses taught), and any other information pertaining to academic activities allowing a merit evaluation. Everything should be documented: print-outs of relevant webpages or copies of certificates usually suffice.



About the selection process

The selection is competitive, taking the form of a formal examination, graded by a committee.

After a formal evaluation of the applications, those accepted will be listed at the Diário Oficial do Estado, and the examination part will be set for a date within 30 and 120 days.

The examination consists of:

- Written exam (weight 20%)
- Evaluation of the extended CV, with public questioning (weight 50%)
- Teaching examination (weight 30%)

The examination can be taken in English; the language choice should also be stated on the cover letter. It is expected that a foreign candidate, if selected, will become fluent and be able to teach courses in Portuguese within two years.

The written exam will refer to standard undergraduate courses on modern physics and quantum mechanics, which reference books are “Tipler, P. A. and Llewellyn, P. A. *Modern Physics*. 6th ed. W. H. Freeman, 2012” and “Griffiths, David. *Introduction to quantum mechanics*. 2nd ed. Prentice Hall, 2005. The subject of the exam will be randomly chosen from a list of ten points to be announced 24 hours before the examination. During the first hour it will be allowed to consult books or other references. The candidate can take notes during this first hour and then use them during the remaining of the exam.

The teaching examination will be a public undergraduate class on a subject drawn randomly from a list based on the topics listed above. The candidates have 24 hours to prepare and may use books or other references.

The extended CV will be graded, based on the evaluation proper and the public questioning, and should reflect the candidate's merits. The evaluation should consider: scientific production, university teaching experience, activities related to academic community service and extension services, professional activities, academic titles, prizes, and so on.



The contract of the selected candidate is conditional on approval by the appropriate Central Committee of the University. A candidate who is not a Brazilian citizen will have to present the appropriate visa and work permits. The necessary documents from USP will be provided. The commencing date will most likely be in early November, 2017.

More information

Please find below some links with information about our department, university, and research in Brazil:

- [São Carlos Institute of Physics](#)
- [Science in Brazil: Go south, young scientist - The Economist](#)

For further information, feel free to contact Frederico Brito at fbb@ifsc.usp.br or any member of the Theoretical Physics Group.

Original translation by [Prof. Ali Tahzibi's at ICMC-USP](#).