

August 1st, 2015

Research and Education Center for Natural Sciences, Keio University
MEXT-Supported Program for the Strategic Research Foundation
at Private Universities “Topological Science”
Principal Investigator, Muneto Nitta

Job Openings for Postdoctoral Positions in Physics

This document lists conditions specific to the postdoctoral positions offered by the Research and Education Center for Natural Sciences at Keio University. The positions are supported by the grant from the Ministry of Education, Culture, Sports, Science and Technology (MEXT)-Supported Program for the Strategic Research Foundation at Private Universities “Topological Science” (Principal Investigator: Muneto Nitta). The aim of this project is to understand the physics underlying a wide range of phenomena, through the common theme of topology.

More information can be found in the following link:

<http://www.sci.keio.ac.jp/news/detail.php?eid=00091>

1. Research Field: Physics

Research in various subjects areas within physics based on topology.

Expected areas of research are

Fundamental Physics: supersymmetric field theory, lattice field theory, QCD, neutron stars, high energy physics phenomenology, cosmology, string theory.

Condensed Matter Physics: topological insulators/superconductors/superfluids, ultracold atomic gases, quantum turbulence, magnets/spintronics, topological quantum computation, statistical physics of fluctuations

Other: Subject areas related to topology not included above.

2. Number of Openings: About Ten

3. Affiliation: Research and Education Center for Natural Sciences at Keio University

4. Place of Employment: Department of Physics at Hiyoshi Campus, Keio University, or Theoretical Physics Laboratory, Department of Physics at Yagami Campus, Keio University, both within ten minutes walking distance of each other, in Yokohama, Japan.

5. Position: Postdoctoral researcher, employed as a staff (part-time) at the Research and Education Center for Natural Sciences.

The appointee may become a visiting researcher or a visiting assistant professor, depending on her or his research achievements, and is eligible to apply for KAKENHI grants from MEXT.

6. Work Start Date: October 1st, 2015 or earlier
7. Period of Employment: Initial appointment is two and a half years or less, and may maximally be extended to March 31st, 2020, depending on the research accomplishments of the appointee and on the results of the midterm review of the project.

Contract needs to be renewed every academic year, which starts on April 1st.

The appointee needs to work at least six months during the academic year (April 1st to March 31st). (For instance, a researcher starting work on October 1st needs to stay on this contract until March 31st next year, without interruption. If the researcher stays on the contract next academic year starting April 1st, she or he cannot leave the position before September 30th.)

8. Work Hours: 26 hours, four days per a week.

9. Remuneration (Basic Salary and Benefits Package):

The basic salary will be maximally about 300,000 yen per month, determined in accordance with the regulations of Keio University, with considerations for qualifications, work experience, and achievements.

The benefits package includes social insurance, employment insurance and commuting allowance, but does not include health insurance.

10. Research fund: about 500,000 yen annually per researcher, depending on the grant situation.

11. Requirements: Ph.D. degree

12. Job Description:

- (1) Perform research in physics based on topology
- (2) Organize international conferences, seminars, and/or maintain workstation clusters.
- (3) Attend seminars and other research activities held within the research group.

13. Application Deadline:

Candidates are equally considered until August 20th, 2015, JST.

After this date, candidates will be considered until all the positions are filled.

14. Application Documents (to be submitted in English or Japanese):

- (1) CV including your e-mail address
- (2) The list of publications (please mark the three most relevant papers (and ArXiv numbers, if possible)), invited talks, awards, competitive funding *etc.*
- (3) The subject area(s) most relevant to your research
- (4) Brief outline of past research achievements

- (5) Description of your plan of research (specifically including how topology is relevant to your plan)
- (6) The length of contract that you prefer (maximally two and a half years)
- (7) Whether you can maintain a cluster of workstations
- (8) A list of references (name/affiliation/email address)

A single pdf file should be sent via e-mail to kiban-job@sci.keio.ac.jp

15. Selection Criteria:

- (1) Research achievements
- (2) Research plan and its potential
- (3) Expected contributions to the “Topological Science” project
- (4) The ability (or intention) to perform research in multiple subject areas

16. Selection Process:

- (1) The review of the material submitted for application.
- (2) Interview (possibly through videoconferencing, such as on Skype)

17. Selection Result: Notifications will be made individually by e-mail

18. Other: Questions may be directed to: nitta@phys-h.keio.ac.jp