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Finals are December 14-20, 2018

Visitors:
Daniel Barci, Rio de Janeiro State University, Brazil; (Fradkin) 2123 ESB
December-January

Perimeter Institute for Theoretical Physics: Undergraduate Theoretical Physics Summer Program

Perimeter Institute invites exceptional undergraduate students to join its research community for a fully funded two-week summer school. Ten summer school students will also part of a paid research internship program. Students will learn research tools and collaboration skills while immersed in the multi-disciplinary environment of the world’s largest independent theoretical physics research centre.

This program consists of two parts:

1. **Two-week Summer School (fully-funded):** Twenty successful applicants will spend two weeks immersed in Perimeter’s dynamic research environment -- attending courses on cutting-edge topics in physics, learning new techniques to solve interesting problems, working on group research projects, and potentially even publishing their work. A more detailed schedule will be posted once it is available.

2. **Research Internship:** Applicants may also apply for an optional paid summer research internship. Accepted students will work on projects alongside Perimeter researchers. Students will have the rare opportunity to develop their research skills and absorb the rich variety of talks, conferences, and events at Perimeter Institute. Students chosen for an internship will be emailed the project proposals in February. Selection for the internship will occur at the same time summer school students are selected.

On the [online application](http://physics.illinois.edu/bluesheet.asp) form, applicants can apply for the two-week summer school or for both the summer school and the research internship. Summer school and paid internship positions will be awarded at the same time by February 28, 2019. Selected interns will be contacted in February with the research projects topics. All research interns must complete the two-week summer school.
Postdoctoral Fellowship at Simon Fraser University, British Columbia Canada

A postdoctoral fellowship in theoretical / computational statistical physics is available, funded by an NIH R01 grant for a study on DNA replication. The initial appointment will be for one year, starting September 1, 2019, and can be extended for two more years.

We have pioneered quantitative statistical modeling of DNA replication in cell populations. New technology is giving information about replication in individual cells. How much of the stochasticity seen in populations is due to different replication “programs” of individual cells? The present position is funded as part of a collaboration with Nick Rhind at the University of Massachusetts Medical School.

The ideal candidate would have experience with computer programming, modeling of biological systems, statistical mechanics, and a PhD in a relevant field such as physics or biophysics, or an equivalent training. But most important is intellectual curiosity, enthusiasm for research in this area, and an excellent track record in whatever field that has been pursued.

The position will be based primarily at Simon Fraser University (SFU), which is just outside Vancouver, British Columbia. The city is regularly ranked amongst the most livable in the world with a wealth of cultures and amazing outdoor activities near by. The position includes opportunities to interact with SFU’s active Biophysics and Soft Matter group.

To apply, please send a CV, list of publications, and contact information (preferably in the form of email addresses) for two references to John Bechhoefer (johnb@sfu.ca).
Faculty Position In Materials Theory (including statistical or soft-matter) at Dalhousie University

The Department of Physics & Atmospheric Science invites applications for appointment to a tenure stream Assistant, Associate, or full Professor position from outstanding candidates with expertise in theoretical and/or computational research in the areas of either condensed matter physics or materials physics that complement or extend the strengths of our department (https://www.dal.ca/faculty/science/physics/research/centres-and-labs.html). This position is part of the Dalhousie Diversity Faculty Award (DDFA) program. In keeping with the principles of Employment Equity, the DDFA program aims to correct historic underrepresentation. This position is restricted to candidates who self-identify in one (or more) of the following groups: Aboriginal people or racially visible persons.

Applicants are required to have a PhD, postdoctoral or equivalent experience, demonstrated excellence in research, and strong potential for effective teaching and outreach. The successful candidate must be positioned to build a sustainable research group, and capable of teaching both undergraduate and graduate classes in theoretical physics.

Applications will be reviewed until the position is filled. Applications received by Dec. 31st, 2018 will be given full consideration. Applications will consist of a cover letter, a curriculum vitae including publication list, a research plan that is 3 – 4 pages in length, a statement of teaching and outreach interests and experience, at least three confidential letters of reference forwarded under separate cover by the referees, and a completed Self-Identification Questionnaire, which can be found at www.dal.ca/becounted/selfid. Applications should be emailed to physics@dal.ca c/o Chair of Theoretical Physics Search Committee.
Postdoctoral Researcher at Department of Applied Physics at the Aalto University

The position is financed by an Academy of Finland grant on time-dependent fracture. The goals of the post-doc position may be tuned towards the strengths and interests of the person hired, and the aspects may include participation in the design and running of experiments, analyzing experimental data, and focusing in computational models including writing code. An essential part is interacting with others in the group working in related areas.

The Complex Systems and Materials group is located in the Department of Applied Physics at the Aalto University, 10 km (15 min by metro) from Helsinki downtown. The duration of the position is 1+1 years. Post-doc candidates are expected to have a solid knowledge in statistical physics, and have an interest in some mixture of non-equilibrium physics, fracture, and complex systems.

Freeform, 1 page applications plus a CV and the contact info for 2-3 references should be sent by email to mikko.alava@aalto.fi by January 15th, 2019.
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Applications are invited for two postdoctoral openings in condensed matter theory in the Shanghai Center for Complex Physics, a research unit of the School of Physics of Shanghai Jiao Tong University, Shanghai, China.

Apply online here: https://academicjobsonline.org/ajo/jobs/12386

The successful candidates will work with Prof. Antonio M. García-García amgg@sjtu.edu.cn.

For more information about Prof. García-García’s group research see http://www.physics.sjtu.edu.cn/en/people/1/antonio and http://www.physics.sjtu.edu.cn/amgg/

Research Profile: Candidates with a PhD in theoretical physics, or with the prospect of obtaining it before Sep 2019, will be considered. Problems of current interest include holographic dualities and the physics of the Sachdev-Ye-Kitaev model, low dimensional superconductivity, many-body localization and applications of machine learning to condensed matter problems.

Duration: Two year with the possibility of a two-year extension.

Eligibility: Candidates of all nationalities are welcome to apply. The working language is English.

Deadline: For full consideration completed applications, including recommendation letters, must be received before Dec 31 2018.
CALENDAR OF EVENTS [http://physics.illinois.edu/bluesheet.asp](http://physics.illinois.edu/bluesheet.asp)

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Postdoctoral Positions in Quantum Many Body Theory & Topological Phases University of Cambridge

Research Assistant/Associate in Quantum Many-Body Theory x 2

Applications are invited for two Postdoctoral Research Assistant/Associate positions, funded by an ERC Starting grant, to work with Dr B. Beri at the Department of Physics and/or the Department of Applied Mathematics and Theoretical Physics, University of Cambridge. The posts are for theoretical investigations of quantum many-particle systems, including certain strongly correlated forms of topological phases, in part motivated by developments in solid-state quantum devices, ultracold atoms, and quantum information theory.

Closing date: 15 January 2019

Start date: 1 September 2019 or a mutually agreed date shortly before/after. Please note that the funds for these posts are available until 31 August 2021.

For further details about the post and to apply please follow the link below: [http://www.jobs.cam.ac.uk/job/19661/](http://www.jobs.cam.ac.uk/job/19661/)
Postdoctoral Positions, the SISSA Statistical Physics Group

Postdoctoral positions within the SISSA Statistical Physics Group are available starting in autumn 2019. The positions have a total duration of two years and the successful candidates are expected to work on the general area of quantum field theory and statistical physics. Some positions are fully funded within the European ERC project NEMO (New Entangled states of Matter Out of equilibrium) with PI Pasquale Calabrese and can be extended to three years.

Short-listed candidates will be contacted to be informed on which positions they are considered.

The scientific interests of the group include quantum and conformal integrable models, tensor network calculations, entanglement in many-body systems, cold atoms, classical and quantum non-equilibrium statistical physics, quantum quenches and thermalization, classical and quantum disorder systems.

A description of the research interests of the group and of the current members can be found at [http://www.sissa.it/statistical/](http://www.sissa.it/statistical/)

We would be grateful if you bring these postdoctoral positions to the attention of potential strong candidates and encourage them to apply.

The application deadline is January 31, 2019, but earlier applications are encouraged.

Applications (which should include a CV with list of publications, a brief research statement, and the names of at least two referees) should be done via the Academic Jobs Online Service.
Postdoctoral Researchers at Technion, Israel Institute of Technology

The statistical mechanics / soft condensed matter group at the Technion physics department is looking for exceptional postdoctoral candidates. The group, consisting of Guy Bunin, Yariv Kafri, and Dov Levine, has a broad range of research interests in systems far from equilibrium, including active matter, dynamics of interacting biological populations, and order and self-organization. We enjoy active collaborations with the strong experimental biophysics and theoretical hard condensed matter groups in the department, and we encourage interactions.

Qualified candidates are requested to send a CV, a brief description of research interests, and three letters of reference to Yariv Kafri (yarivkafri@gmail.com)
CALENDAR OF EVENTS http://physics.illinois.edu/bluesheet.asp

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CMT Postdoctoral Positions at Oxford

The CMT group at Oxford expects to appoint up to 3 postdoctoral researcher assistants to perform research on the theory of condensed matter. The senior members of the group are Professors J T Chalker, F. H. L. Essler, P. Fendley, D. E. Logan, S A Parameswaran and S. H. Simon. The positions are supported from an EPSRC grant on “Coherent Many-Body Quantum States of Matter” and are available for a fixed-term period of 2 years starting on 1 October 2019 (or mutually agreed date shortly before/after), with possible extension for a third year.

We are particularly interested in candidates with expertise one or more of the following areas:
— quantum field theory applied to quantum condensed matter systems
— topological aspects of quantum condensed matter, particularly in interacting systems
— one dimensional interacting quantum systems including techniques of integrability
— numerical methods, particularly tensor network and MPS techniques for strongly correlated systems

A full job description and selection criteria are available at: https://www.recruit.ox.ac.uk/pls/hrisliverecruit/erq_jobspec_version_4.jobspec?p_id=138097.

Further enquiries about the role may be directed to one of the grant holders: john.chalker@physics.ox.ac.uk, fabian.essler@physics.ox.ac.uk, paul.fendley@physics.ox.ac.uk, david.logan@chem.ox.ac.uk, sid.parameswaran@physics.ox.ac.uk, steve.simon@physics.ox.ac.uk

The deadline for applications, including all reference letters, is noon UK time on January 3, 2019.

***Please note that these posts are in addition to two ERC-funded posts previously advertised [https://academicjobsonline.org/ajo/jobs/12420]. Owing to UK employment law and immigration policies, candidates must apply separately for each post. Therefore, even if they have already applied to a different position at Oxford, candidates must submit an application in response to the present advertisement to be considered for these new posts. New applicants should apply to both advertisements to be considered for the full range of available positions.***
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