Postdoctoral positions around the world:

15.10.20

We have several postdoctoral positions available IN QUANTUM MATERIALS AND QUANTUM INFORMATION.

Postdoctoral fellows will find in the IQ (Institut Quantique) a dynamic environment offering them great freedom and resources to enhance their careers as researchers.

English:
https://www.usherbrooke.ca/iq/en/resources/students/study-at-iq/iq-postdoctoral-fellowship/
[1]

French:
https://www.usherbrooke.ca/iq/ressources/communaute-etudiante/etudier-a-liq/concours-de-bourses-postdoctorales/
[2]

IQ POSTDOCTORAL FELLOWSHIP

We are looking to recruit researchers with a background and interest in quantum information, quantum materials or quantum engineering. We are seeking young researchers who are highly motivated and wish to apply their talents and creativity to challenging projects in quantum science and/or innovate new quantum technologies. Applicants should demonstrate their capacity for research with their publication record and/or a strong potential for technological transfer of their research results. Both experimental and theoretical candidates are encouraged to apply. Fellows will need to have completed their PhD in the 4 years prior to starting their position. The University is committed to making a priority of diversity, equity and inclusion as strategic factors of excellence. The University invites all qualified individuals to apply, in particular, women, members of visible and ethnic minorities, Aboriginal peoples, and persons with disabilities under the Programme d’accès à l’égalité en emploi (PAEE). The University also encourages individuals of all sexual orientations and gender identities to apply.

ABOUT THE FELLOWSHIPS

* Highly competitive fellowship offered.
* Discretionary research and travel funds are included.
* Fellows are encouraged to drive their own research program and collaborate with researchers of their choosing.
* Fellows will have access to an internal funding competition and will be encouraged to mentor students.
* Languages, entrepreneurship and intellectual property classes are available at the Université de Sherbrooke.
* Dedicated support for patent applications is available.
* No teaching is required but involvement in summer schools and workshops is encouraged.

WHEN TO APPLY

We encourage you to apply for the fellowship competition before NOVEMBER 30TH, 2020. However, numerous funding opportunities are available throughout the year and we recommend contacting IQ researchers regarding postdoctoral positions at any time.
HOW TO APPLY

* Submit a CV and a short description of your research interests and proposed research program (maximum 2 pages).
* Ensure that two letters of recommendation are sent directly to the Institute.
* Applications and letters should be sent to postdoc-iq@USherbrooke.ca

Applicants selected for an interview will be invited to visit the Institut quantique, to give a seminar and meet potential collaborator

André-Marie Tremblay
Professor Department of Physics and Institut quantique
Fellow of the Royal Society of Canada
Fellow of the American Physical Society

Department of Physics and Institut quantique
Université de Sherbrooke
2500 Boul. Université Sherbrooke
QC J1K 2R1
Canada
819-580-3504

https://www.physique.usherbrooke.ca/pages/en/node/3412

Links:
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[1] https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.usherbrooke.ca%2Fiq%2Fen%2Fresources%2Fstudents%2Fstudy-at-iq%2Fiq-postdoctoral-fellowship%2F&amp;data=02%7C01%7CAndre-Marie.Tremblay%40USherbrooke.ca%7Cfd4926a7ac294d1fb91508d8656c13a9%7C3a5a8744593545f99423b32c3a5de082%7C0%7C637370862183458279&amp;data=obukEux0v3m%B8k%2B%FIlb1b2y%2F0P1G4Dp1xbN%2F%2FylqM%3D&amp;reserved=0
[2] https://can01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.usherbrooke.ca%2Fiq%2Fressources%2Fcommunaute-etudiante%2Fetudiant-a-liq%2Fconcours-de-bourses-postdoctorales%2F&amp;data=02%7C01%7CAndre-Marie.Tremblay%40USherbrooke.ca%7Cfd4926a7ac294d1fb91508d8656c13a9%7C3a5a8744593545f99423b32c3a5de082%7C0%7C637370862183458279&amp;data=hhq9YBoVZ9RMh4AZjRQKHnS92%2FwJgC5uJJFhKNWMD%3D&amp;reserved=0

14.10.20
UF Dirac Postdoctoral Position in Condensed Matter Theory;
The Department of Physics at the University of Florida seeks to fill a Dirac Postdoctoral position in Theoretical Condensed Matter Physics with a starting date in the Fall of 2021. The position is sponsored by The National High Magnetic Field Laboratory (MagLab) [2]. The successful candidate is
expected to be located at the University of Florida in Gainesville and to collaborate with theoretical and experimental groups at the three MagLab sites (Gainesville [1], Los Alamos [3] and Tallahassee [4]). The position is for two years, subject to performance and continued funding. The appointment includes a competitive salary and benefits, and discretionary funds to cover research and/or travel expenses.

To apply, please visit https://facultyjobs.hr.ufl.edu/posting/79536. We especially encourage applications from the demographic groups underrepresented in STEM [5].

Dmitrii Maslov
Department of Physics
University of Florida
maslov@ufl.edu
(352) 392-0513

Links:
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[1] https://www.phys.ufl.edu/wp/
[2] https://urldefense.proofpoint.com/v2/url?u=https-3A__nationalmaglab.org_user-2Dfacilities_pulsed-2Dfield-2Dfacility&amp;d=DwMFAg&amp;c=sJ6xIWyX-zLMB3EPkvcnVg&amp;r=izv2UweQJDJF3APK4Yh_Rkdz-mSpIzJsuvXhyQOnFM&amp;m=glA-BpCfFz-QM1K69b43rb6wyTDK-Y7fIU0tr6MwUU&amp;s=j738w2ogms8qvYYb.pgRAhZzmOtrxzMh4j826VfmIZs&amp;e=
[3] https://urldefense.proofpoint.com/v2/url?u=https-3A__nationalmaglab.org_user-2Dfacilities_dc-2Dfield&amp;d=DwMFAg&amp;c=sJ6xIWyX-zLMB3EPkvcnVg&amp;r=izv2UweQJDJF3APK4Yh_Rkdz-mSpIzJsuvXhyQOnFM&amp;m=glA-BpCfFz-QM1K69b43rb6wyTDK-Y7fIU0tr6MwUU&amp;s=plguRhe_ApXjo1Dd7LAiLTU17aYa0R3C8agJDPZByLA&amp;e=
[4] https://urldefense.proofpoint.com/v2/url?u=https-3A__nationalmaglab.org_user-2Dfacilities_pulsed-2Dfield-2Dfacility&amp;d=DwMFAg&amp;c=sJ6xIWyX-zLMB3EPkvcnVg&amp;r=izv2UweQJDJF3APK4Yh_Rkdz-mSpIzJsuvXhyQOnFM&amp;m=glA-BpCfFz-QM1K69b43rb6wyTDK-Y7fIU0tr6MwUU&amp;s=plguRhe_ApXjo1Dd7LAiLTU17aYa0R3C8agJDPZByLA&amp;e=
[5] https://urldefense.proofpoint.com/v2/url?u=https-3A__www.nsf.gov_statistics_2017_nsf17310_digest_introduction_&amp;d=DwMFAg&amp;c=sJ6xIWyX-zLMB3EPkvcnVg&amp;r=izv2UweQJDJF3APK4Yh_Rkdz-mSpIzJsuvXhyQOnFM&amp;m=glA-BpCfFz-QM1K69b43rb6wyTDK-Y7fIU0tr6MwUU&amp;s=plguRhe_ApXjo1Dd7LAiLTU17aYa0R3C8agJDPZByLA&amp;e=

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13.10.20
Perimeter Institute for Theoretical Physics is inviting applications for tenure-track Faculty positions in Quantum Matter (https://landing.perimeterinstitute.ca/e2t/sc2/MmZ-8ykd_0sW5mWHTs90q9x-W7QpYwR8-Gf92VkJ7hr5-S8w4dBzP8P04) and Quantum Information Science (https://landing.perimeterinstitute.ca/e2t/sc2/MmZ-8ykd_0sW5mWHTs90q9x-W7QpYwR8-Gf92VkJ7hr5-S8w4dBzP8P04). For more information please visit our website. (https://landing.perimeterinstitute.ca/e2t/sc2/MmZ-8ykd_0sW5mWHTs90q9x-W7QpYwR8-Gf92VkJ7hr5-S8w4dBzP8P04)

We would be very grateful if you would circulate this information to outstanding early career candidates who may be interested in this opportunity.
Perimeter Institute offers a dynamic, multi-disciplinary environment with maximum research freedom and opportunity to collaborate. Consideration of applications will begin on December 1, 2020; however, applications will be considered until the positions are filled.

Perimeter Institute for Theoretical Physics | 31 Caroline Street North | Waterloo, Ontario, Canada | N2L 2Y5

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07.10.20
Postdoctoral grant in Poland -- https://www.ncn.gov.pl/ogloszenia/konkursy/sonata16 -- The english ad will be out after sometime. It has a deadline of dec 15.

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07.10.20
Please draw the attention of interested candidates to the attached announcement. Candidates can apply through the web site here [1]

Please note that the application deadline is October 31, but applications will be reviewed as they arrive, so for maximum consideration, WE STRONGLY ENCOURAGE EARLY APPLICATIONS. Feel free to contact us you have any questions.

Meng Cheng
Leonid Glazman

On behalf of Yale Condensed Matter Theory group

YALE PRIZE POSTDOCTORAL FELLOWSHIP IN CONDENSED MATTER THEORY

The Condensed Matter Theory group at Yale University seeks outstanding applicants for a Yale Physics Prize Postdoctoral Fellowship endowed by Yale University, to start in the Summer or Fall of 2021. Preference will be given to applicants with expertise in quantum aspects of condensed matter theory and research interests in the general areas of electron correlations, low-dimensional systems, topological phases of matter, disorder, cold atomic gases, and physics of quantum computation. Candidates should forward their CV with publication list and outline of research interests and arrange for three recommendation letters. Candidates may also include up to four selected preprints and reprints. Electronic submission (in PDF format) of applications and supporting materials is strongly preferred. Please submit all materials, including recommendation letters, to http://apply.interfolio.com/78494 [1]. Early applications are strongly encouraged.

Applications and letters must be received prior to October 31, 2020 to guarantee full consideration.

Yale is an Affirmative Action/Equal Opportunity Employer. Yale values diversity among its students, staff, and faculty and strongly welcomes applications from women, persons with disabilities, protected veterans, and underrepresented minorities.

Links:
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07.10.20
We would like to draw your attention to multiple postdoctoral fellowship openings in the Simons Collaboration on Ultra-Quantum Matter (UQM) https://projects.iq.harvard.edu/ultra-qm with a Fall
2021 start date. We would appreciate your bringing this opportunity to the attention of interested individuals. Apologies if you are receiving this message multiple times.

Simons UQM Postdoctoral Fellows will be selected through a common application process. Although they will typically be associated with a single institution, they are free to work with all collaboration members and attend all meetings.

The collaboration brings together condensed matter, high-energy, quantum information and atomic theorists with the goal of classifying and characterizing topological and fracton matter, developing dualities and other approaches to strongly coupled gapless phases, as well as finding novel platforms to realize and probe highly entangled quantum states in the laboratory.

The deadline for full consideration is November 15, and applications can be submitted here: https://academicjobsonline.org/ajo/jobs/17047

More information can be found here: https://projects.iq.harvard.edu/ultra-qm/ opportunities

The following institutions and faculty participate in the UQM Collaboration:

California Institute of Technology (Xie Chen)
Harvard University (Subir Sachdev and Ashvin Vishwanath)
Institute for Advanced Study (Nathan Seiberg)
Massachusetts Institute of Technology (Senthil Todadri and Xiao-Gang Wen)
Stanford University (Shamit Kachru)
University of California San Diego (John McGreevy)
University of California Santa Barbara (Leon Balents and Matthew Fisher)
University of Chicago (Michael Levin and Dam Thanh Son)
University of Colorado Boulder (Victor Gurarie and Michael Hermele)
University of Innsbruck (Peter Zoller)
University of Maryland and Joint Quantum Institute (Victor Galitski)
University of Texas Austin (Andreas Karch)

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07.10.20
PhD and postdoc position in Driven quantum matter Jozef Stefan Institute, Ljubljana, Slovenia; A PhD and a postdoc position are open at the Department of theoretical physics, Jozef Stefan Institute, as part of Slovenian research fund (ARRS).

Candidates will primarily work with Zala Lenarcic, as well as with other members of the department (P. Prelovsek, L. Vidmar, J. Bonca) and at the University of Ljubljana (T. Prosen, M. Znidaric).

The starting date is negotiable, preferable the first months of 2021. There is no deadline for the application; however, the positions will be filled as soon as suitable candidates are found. The appointment is initially for 3.5 years for the PhD position and for 2 years for the postdoc position.

The research program will include:

• Developing theoretical proposals to utilize driving in order to find new functionalities of correlated materials and to understand fundamental properties quantum systems.
• The focus will be on systems with additional symmetries, such as integrable, many-body local-ized, quantum scarred Hamiltonians and other models, which have been extensively studied in idealized limits that are not easily experimentally realized.
• The aim will be to make a connection between fundamental studies on breaking of ther-malization in perfectly closed systems with symmetries and more realistic setups, taking into account weak openness and other imperfections. We will design driving protocols to fight those imperfections.
• We will employ analytical (generalized hydrodynamics) as well as numerical (tensor network, machine learning) approaches for open systems, depending on the preference of the candidate. For the postdoc position, a specialization on these techniques will be advantageous.
• Motivated candidates will profit from a vivid exchange with collaborators at the University of Cologne (A. Rosch) and the University of California, Berkeley (E. Altman).

Please submit your application with a CV, description of research interests, publication list (if relevant), Bachelor’s and Master’s grades (for PhD candidate) and names and e-mails of two possible referees via e-mail to Zala Lenarcic (zala.lenarcic@ijs.si).

Further information about the research activities of:
Zala Lenarcic, http://www-f1.ijs.si/zala/
Department for theoretical physics, http://web-f1.ijs.si/research/
Tomaz Prosen’s group, https://chaos.fmf.uni-lj.si,
can be found on given links.

Other openings at the Department of theoretical physics are:
Modeling quantum materials out of equilibrium, lead by Denis Golez
Electronic transport in realistic material, lead by Jesenj Mravlje

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02.10.20
Postdoctoral Openings in Condensed Matter Theory at Harvard

We would like to bring to your attention multiple postdoc positions in Condensed Matter Theory at Harvard University. For full consideration applications should be received by November 1, although later applications may also be considered on a rolling basis.

Application can be submitted on Academic Jobs Online: https://academicjobsonline.org/ajo/jobs/17048

Liz Alcock on behalf of Professors Demler, Halperin, Lukin, Sachdev, Vishwanath, Kaxiras, and Narang

Faculty Assistant to Professors Demler, Halperin, Nelson, Sachdev, and Vishwanath
Harvard University
Department of Physics
17 Oxford St., Lyman 324B
Cambridge, MA 02138

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29.09.20
Opportunities at the Flatiron to your attention:
https://www.simonsfoundation.org/flatiron/center-for-computational-quantum-physics/ccq-job-opportunities/

We’ll be looking for some new postdocs but there is also an opening for a research scientist, which is a senior level position.

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29.09.20
[Mpq-theory] Open positions at AWS quantum
Amazon Web Services Quantum Computing is offering a number of open positions in different areas of Quantum Science and Technology including (and not limited to) quantum engineering, quantum computing, quantum algorithms, quantum optics, condensed matter, simulations, applications and others. If you think you (or some collaborators of yours) might be interested, please visit all the openings at the following link:
Also, feel free to spontaneously contact me at npancott@amazon.com for additional information.

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29.09.20

*Job Summary*: A Postdoctoral Associate position is available at the Center of Quantum Phenomena, Department of Physics, New York University under the supervision of Professor Aditi Mitra;

The position is funded by federal grants and will broadly involve the study of non-equilibrium and topological states of matter. There are opportunities to develop collaborations with neighboring institutions in the NY metropolitan area. Candidates for the position must have a Doctorate degree in Physics or a related discipline.

The start date is January 15, 2021, but earlier or later start dates are also possible. The appointments are for two years with the possibility of a third year subject to performance and continued funding.

The applicants should submit their CV on interfolio, and also arrange for 2 letters of recommendation to be submitted on interfolio. The link is: http://apply.interfolio.com/79276

*Qualifications*: PhD in Physics or related research fields, and within 0-5 years of their PhD.

NYU is an Equal Opportunity Employer and is committed to a policy of equal treatment and opportunity in every aspect of its recruitment and hiring process without regard to age, alienage, caregiver status, childbirth, citizenship status, color, creed, disability, domestic violence victim status, ethnicity, familial status, gender and/or gender identity or expression, marital status, military status, national origin, parental status, partnership status, predisposing genetic characteristics, pregnancy, race, religion, sex, sexual orientation, unemployment status, veteran status, or any other legally protected basis. Women, racial and ethnic minorities, persons of minority sexual orientation or gender identity, individuals with disabilities, and veterans are encouraged to apply for vacant positions at all levels.

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29.09.20

PhD and Postdoc positions in Theoretical Condensed Matter Physics University of Manitoba, Winnipeg, Canada /University of Kaiserslautern, Germany;

Two PhD positions and two postdoc positions (for up to 3 years) are open in the groups of Prof. J. Sirker at the University of Manitoba (Winnipeg) and of Dr. I. Schneider at the Univer-sity of Kaiserslautern, Germany.

We are looking for outstanding students and Postdocs interested in theoretical physics and its applications to condensed matter and quantum optics. A particular focus of our research is on non-equilibrium dynamics in low-dimensional quantum systems and the effects of impurities and disorder in such systems. During the PhD work analytical approaches from field theoretical methods and Bethe ansatz combined with numerical MPS/DMRG studies will be applied. For the Postdoc positions a specialization on these techniques will be a plus.

We offer a collaborative environment with the possibility to obtain a joint PhD (cotutelle) from the University of Manitoba and the University of Kaiserslautern. In particular, the posi-tions will be associated with the Research Unit "Correlations in Integrable Quantum Many-Body Systems" (see http://for2316.uni-wuppertal.de for details). This research unit studies low-dimensional quantum many-body systems including models for spin chain materials, quantum wires, and cold atomic gases. It will organize regular international conferences and student workshops and provide travel money to participate in these events.

Please submit your application by October 9, 2020. The review of applications will start immediately and continue until the candidates have been selected. Your application should include a curriculum vitae, a short statement about your research interests, publications (including Bachelor, Master, or PhD theses if available), copies of your official transcripts, as well as the contact addresses of two possible referees.

Further information about the research activities of the groups can be found at http://drop.physics.umanitoba.ca/~jsirker/ and http://www-user.rhrk.uni-kl.de/~imschnei/.

Please submit your application via email to jesko.sirker@umanitoba.ca or ischneider@physik.uni-kl.de.

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28.09.20
Postdoctoral fellowship in the CMT group at Boston University,
We are writing to advertise a post-doctoral fellowship in the BU CMT group starting in the Fall of 2021. We welcome applications from candidates working in any area of condensed matter theory, AMO theory and quantum computation. Applications are due through AJO (https://academicjobsonline.org/ajo/jobs/16962) by Dec 1, 2020.

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25.09.20
Dirac postdoc fellowship in CMT at MagLab;
There is an opening for the Dirac postdoctoral fellowship in theoretical condensed matter physics at the Magnet Lab in Tallahassee. The link for the ad is here: https://nationalmaglab.org/careers/job-opportunities/dirac-postdoctoral-fellowship-in-theoretical-condensed-matter-physics

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23.09.20
Application for Postdoctoral Research Associate - Gordon and Betty Moore Foundation, Princeton University;
We would like to bring to your attention that applications are now being accepted for postdoctoral research associates or more senior researchers as part of the Gordon and Betty Moore Foundation’s Emergent Phenomena in quantum Systems initiative (EPiQS). We hope that you will bring this information to the attention of qualified individuals. If there are candidates that you wish to recommend to us, we would very much like to hear from you. Interested candidates must apply on line at https://www.princeton.edu/acad-position/position/17661

B. Andrei Bernevig, Professor of Physics
Ravin Bhatt, Professor of Electrical Engineering
Duncan Haldane, Professor of Physics
David Huse, Professor of Physics

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18.09.20
Applications are now being accepted for Postdoctoral Fellowships, Perimeter Institute for Theoretical Physics, Waterloo, Ontario, Canada |
Perimeter Institute for Theoretical Physics is inviting applications for Postdoctoral Research positions. For more information please visit our website (https://landing.perimeterinstitute.ca/e2t/sc2/MmnFbkdjrjmW70x8sV5lf8RW6dBGWb5kshtyW63y8bj8hqszqflHVNP223).

We hope you will share the news by:
- Forwarding this information directly to prospective candidates who may be interested in this opportunity.
- Printing and hanging the poster located here (https://landing.perimeterinstitute.ca/e2t/sc2/MmnFbkdjrjmW70x8sV5lf8RW6dBGWb5kshtyW63y8bj8hqszqflHVNP233).

Perimeter Institute offers a dynamic, multi-disciplinary environment with maximum research freedom and opportunity to collaborate. We welcome all candidates to apply by November 9, 2020 but applications will be considered until all positions are filled.

Privacy Policy (https://landing.perimeterinstitute.ca/e2t/sc2/MmnFbkdjrjmW70x8sV5lf8RW6dBGWb5kshtyW63y8bj8hqszqflHVNP243)
Two postdoctoral positions in condensed matter theory at the University of Alberta

We seek excellent applicants to fill two (2) postdoctoral positions in condensed matter theory at the University of Alberta. The first position is a joint appointment with Prof. Joseph Maciejko (www.ualberta.ca/~maciejko) and Prof. Igor Boettcher (www.ualberta.ca/~iboettch):

https://academicjobsonline.org/ajo/jobs/16791

The second position is in the group of Prof. Igor Boettcher:
https://academicjobsonline.org/ajo/jobs/16802

Topics include topological phases of matter, strongly correlated electrons, quantum criticality, hyperbolic lattices, and quantum field theory in hyperbolic space. The starting date for both positions is Fall 2021. We ask potential candidates to submit their application documents via Academic Jobs Online until December 1, 2020. We would appreciate if you could forward this information to qualified potential applicants.

Postdoc position at University of Waterloo;

This is to bring to your attention that I have a postdoc position available in my group to start in the Fall of 2021 or earlier. The position is for two years, with a possible extension. The research area is topological phases of matter, broadly defined. The position will be based at University of Waterloo, but collaboration with nearby Perimeter Institute researchers is possible and will be encouraged. Interested candidates should submit a CV and arrange for 2 - 3 recommendation letters to be emailed directly to me at aburkov@uwaterloo.ca.

Anton Burkov
Department of Physics and Astronomy
University of Waterloo
200 University Avenue West
Waterloo, Ontario, Canada N2L 3G1

Web: http://www.science.uwaterloo.ca/~aburkov

Two tenure-track assistant professor positions in Basel - quantum condensed matter;

We have two tenure-track assistant professor positions to fill in the Department of Physics, University of Basel, Switzerland. The positions are in the field of quantum condensed matter: one in theory and one in experiment. We are looking for candidates familiar with the physics of semiconductors as well as quantum computing.

For more information, please see the following link:
https://academicjobsonline.org/ajo/jobs/16361
and
https://academicjobsonline.org/ajo/jobs/16362

I would be grateful, if you can forward this information to potential candidates.

I am writing to advertise a postdoctoral position at Iowa State University to perform research at the intersection of condensed matter theory and quantum information. The work will be performed as part of a research team led by myself, Peter P. Orth, and my colleague, Thomas Iadecola. Potential research directions include the development of quantum algorithms for non-equilibrium dynamics in strongly
correlated models with possible applications in many-body localization and non-linear response of quantum materials.

The position is for a term of up to two years and is (partially) funded by a recent NSF grant, “Variational Quantum Algorithms for Nonequilibrium Quantum Many-Body Systems” (https://www.nsf.gov/awardsearch/showAward?AWD_ID=2038010).

For more information, please visit the following link: https://isu.wd1.myworkdayjobs.com/IowaStateJobs/job/Ames-IA/Post-Doc-Research-Associate--Condensed-Matter-Theory-Quantum-Information_R3000

Review of applications will begin immediately and continue until the position is filled.

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09.09.20
PhD and Postdoc positions in Theoretical Condensed Matter Physics
University of Manitoba, Winnipeg, Canada
University of Kaiserslautern, Germany;

Two PhD positions and two postdoc positions (for up to 3 years) are open in the groups of Prof. J. Sirker at the University of Manitoba (Winnipeg) and of Dr. I. Schneider at the University of Kaiserslautern, Germany.

We are looking for outstanding students and Postdocs interested in theoretical physics and its applications to condensed matter and quantum optics. A particular focus of our research is on nonequilibrium dynamics in low-dimensional quantum systems and the effects of impurities and disorder in such systems. During the PhD work analytical approaches from field theoretical methods and Bethe ansatz combined with numerical MPS/DMRG studies will be applied. For the Postdoc positions a specialization on these techniques will be a plus.

We offer a collaborative environment with the possibility to obtain a joint PhD (cotutelle) from the University of Manitoba and the University of Kaiserslautern. In particular, the positions will be associated with the Research Unit "Correlations in Integrable Quantum Many-Body Systems" (see http://for2316.uni-wuppertal.de for details). This research unit studies low-dimensional quantum many-body systems including models for spin chain materials, quantum wires, and cold atomic gases. It will organize regular international conferences and student workshops and provide travel money to participate in these events.

Please submit your application by October 9, 2020. The review of applications will start immediately and continue until the candidates have been selected. Your application should include a curriculum vitae, a short statement about your research interests, publications (including Bachelor, Master, or PhD theses if available), copies of your official transcripts, as well as the contact addresses of two possible referees.

Further information about the research activities of the groups can be found at http://drop.physics.umanitoba.ca/~jsirker/ and http://www-user.rhrk.uni-kl.de/~imschnei/. Please submit your application via email to jesko.sirker@umanitoba.ca or ischneider@physik.uni-kl.de.

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08.09.20
A postdoctoral position is available in quantum matter theory at Uppsala University, focusing on multiband, topological, and odd-frequency superconductivity. The project is part of a larger effort on finding new materials and mechanism for odd-frequency superconductivity
financed by the European Research Council (ERC). See link for more details and information on how to apply:

www.uu.se/en/about-uu/join-us/details/?positionId=349740

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08.09.20

I write to announce multiple openings for postdoctoral positions affiliated with the Center for Theory of Quantum Matter (CTQM), in the Department of Physics at University of Colorado Boulder. The anticipated start date for these openings is Fall 2021, although this may be flexible. We would greatly appreciate your bringing this opportunity to the attention of any strong candidates.

CTQM fosters interdisciplinary research in theoretical quantum many-body physics. Our faculty has expertise in condensed matter physics, atomic physics, quantum optics, quantum information, nuclear physics, high-energy physics, and mathematical physics. See http://ctqm.colorado.edu/ for further information.

Successful candidates will interact with CTQM faculty (Oliver DeWolfe, Victor Gurarie, Michael Hermele, Murray Holland, Emanuel Knill, Andrew Lucas, Rahul Nandkishore, Ethan Neil, Leo Radzihovsky, Ann Maria Rey, Paul Romatschke and Graeme Smith) and can also work with faculty throughout the CU Boulder Department of Physics and at JILA. We encourage applications from candidates with interests in one or more of the sub-fields of theoretical physics listed above.

Applications will be handled online at the following link:

https://jobs.colorado.edu/jobs/JobDetail/?jobId=26811&emailCampaignId=168

Interested candidates will need to upload a cover letter, a CV which includes a list of publications and arXiv preprints, and a brief statement of research interests. Three letters of recommendation are required; contact information for the three references will be entered during the application process, and we will request letters directly from the references, immediately upon application. For full consideration, please apply on or before October 15, 2020, when review of applications will begin.

The University of Colorado Boulder is committed to building a culturally diverse community of faculty, staff, and students dedicated to contributing to an inclusive campus environment. We are an Equal Opportunity employer, including veterans and individuals with disabilities.

For further information please contact Michael Hermele at michael.hermele@colorado.edu.

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03.09.20

The School of Physics and Astronomy at the University of Minnesota invites applications for a postdoc position in theoretical condensed matter physics. The research of the candidate will be co-supervised by Prof. Rafael Fernandes and Prof. Turan Birol, and will be on combined first principles and analytical studies of electrostatically gated quantum materials. Experience with first principles methods such as Density Functional Theory (DFT) or DFT+Dynamical Mean Field Theory is preferable but is not required. The position will be within the university's Materials Research Science and Engineering Center (MRSEC), and as such will involve collaborations with experimental groups. More information about the MRSEC can be found at http://www.mrsec.umn.edu.

Candidates with a PhD degree in physics or related fields are encouraged to apply. The position is expected to last for up to two years. Please apply online at: https://hr.myu.umn.edu/jobs/ext/337334
(Job ID 337334). The application consists of a single pdf file containing a cover letter, a curriculum vitae, a brief research statement, and the names and complete contact information for three references. Please arrange for three letters of reference to be sent by email to Julie Murphy (jjmurphy@umn.edu). Review of applications will begin immediately and continue until the position is filled.

The University of Minnesota shall provide equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, familial status, disability, public assistance status, membership or activity in a local commission created for the purpose of dealing with discrimination, veteran status, sexual orientation, gender identity, or gender expression.

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01.09.20
I am writing to advertise a postdoctoral position at Iowa State University. The successful candidate will work at the intersection of condensed matter theory and quantum information as part of a research team lead by myself and my colleague, Peter Orth. Potential research directions include the development of quantum algorithms for non-equilibrium dynamics in strongly correlated models with possible applications in many-body localization and non-linear response of quantum materials. The position is for a term of up to two years and is (partially) funded by a recent NSF grant, “Variational Quantum Algorithms for Nonequilibrium Quantum Many-Body Systems.”

I would greatly appreciate it if you could bring this opportunity to the attention of any potential candidates. For more information, please visit the following link:


Thomas Iadecola
Dept. of Physics and Astronomy
Iowa State University

Website: https://faculty.sites.iastate.edu/iadecola/ [1]

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01.09.20
Postdoctoral position available at Georgetown University;
I have a postdoctoral opening in my group to work on nonequilibrium many-body physics. The main project is on Monte Carlo based approaches to describe electron-phonon coupled systems in nonequilibrium. The position is for three years. I would appreciate your forwarding this to anyone who is eligible for this position. Review of applications will start immediately and the position is available to be filled now. Please ask candidates to contact me directly for more information. Applications include a CV, a statement of research interests and three letters of reference, which should be sent directly to me.

I appreciate your assistance in helping me locate an appropriate person to fill this position.

Jim Freericks
Professor of Physics and McDevitt Chair
Georgetown University
<James.Freericks@georgetown.edu>
37th and O Sts. NW
Washington, DC 20057
28.08.20
Postdoc position in Berlin;
I am looking for a motivated Postdoc working in the field of theoretical quantum magnetism with a focus on numerical methods.

I would appreciate if you could bring the following announcement for a postdoctoral position at Helmholtz-Zentrum Berlin and Freie Universität Berlin to the attention of suitable candidates:
https://recruitingapp-5181.de.umantis.com/Vacancies/1283/Description/2?lang=eng

Johannes Reuther
Freie Universität Berlin
Arnimallee 14, 14195 Berlin

27.08.20
The Université de Sherbrooke is seeking applications to fill one (1) full-time regular professor position, at the junior, intermediate and/or senior level, in the field of theoretical quantum information in the Department of Physics of the Faculty of Science, on the Main Campus of the Université de Sherbrooke. The University is committed to ensuring that this position is reserved for a woman.

DEPARTMENT OF PHYSICS AND QUANTUM INSTITUTE

The Institut quantique de l'Université de Sherbrooke, with grants from the Canada First Research Excellence Fund and the Canada Foundation for Innovation, is implementing a strategy aimed at scientific breakthroughs in quantum computing, quantum materials and quantum engineering. Within the Institut quantique, members of the Department of Physics maintain close links with the Departments of Computer Science, Mathematics and Electrical and Computer Engineering. Researchers are members of the INstitut TRansdisciplinaire d'Information Quantique and/or the Regroupement Québécois sur les Matériaux de Pointe, as well as an Associated International Laboratory between France and Canada on quantum circuits and quantum materials. In addition to access to important high-performance computational resources, members have access to the Institut quantique's quantum computing platform which includes access to a 53-qubit quantum computer. The new hire will also benefit from the Institut quantique's building, which is conducive to theoretical research and facilitates interactions.

You can find the French version here: https://www.usherbrooke.ca/emplois/offre/no/04230 [1]
André-Marie Tremblay

26.08.20
Please share: Cornell University Bethe/KIC Postdoc Fellowship now accepting applications!
Cornell University's Laboratory of Atomic and Solid State Physics is soliciting applications for the Bethe/KIC Postdoctoral Fellowship. This prize fellowship will provide an outstanding theoretical physicist the opportunity to work with theorists and experimentalists in Cornell's physics department. OUR GROUP [1] has broad interests in hard and soft condensed matter physics, including: cold atom physics, biophysics, statistical physics, hydrodynamics, electronic structure theory, materials science, strongly correlated electrons, nanoscience, computational physics and superconductivity. We also have growing efforts incorporating machine learning into studies of condensed matter physics. We actively encourage applications from diverse and historically underrepresented candidates.

Please submit a CV, publication list, and a 1-3 page research statement to Academic Jobs Online. [2] Applicants should arrange to have three letters of reference uploaded to their application, one of which should be from the candidate's PhD adviser. Applications received by September 15, 2020 will receive full consideration and may also be considered for other Cornell University named Postdoctoral
Fellowship Programs (i.e., the Klarman Fellowships). Please note that candidates must have the pre-approval of a Cornell faculty sponsor to be considered for a Klarman Fellowship. Cornell faculty sponsorship is recommended, but not required, for the Bethe/KIC Fellowship. Please review our website to identify potential matches within LASSP:

[1] WWW.LASSP.CORNELL.EDU/PEOPLE/FACULTY

Bethe/KIC Fellows become lifetime members of the Society of Cornell Fellows - an organization of fellows who received named, prestigious, and competitively awarded postdoctoral fellowships at Cornell. This position is supported in part by the Hans Bethe Postdoctoral Fellowship and by the Kavli Institute at Cornell.

Diversity and Inclusion are a part of Cornell University’s heritage. The College of Arts and Sciences at Cornell embraces diversity and seeks candidates who will create a climate that attracts students and faculty of all races, nationalities, and genders. We strongly encourage women and underrepresented minorities to apply. Cornell University is a recognized EEO/AA employer and educator, valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Links:
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26.07.20

Postdoc positions are available in the newly established group on Quantum Information and Quantum Many-Body Physics, led by Norbert Schuch, at the University of Vienna.

Topics of interest cover the whole range from quantum information and computation to quantum many-body physics, with a focus on tensor networks and related methods.

Possible topics include:

* Theory of Tensor Networks, classification of phases
* Simulation methods for quantum many-body systems, Tensor Network algorithms
* Topological order, spin liquids
* Quantum Algoritms (in particular for NISQ devices and for the simulation of many-body problems)
* Entanglement Theory
* Mathematical structure of quantum many-body systems
* Quantum Complexity Theory

but outstanding candidates with other interests will be considered as well.

Successful candidates will be associated either with the Department of Physics or the Department of Mathematics. Appointments will be for an initial period of 2 years, with the possibility of extension. Starting dates are flexible. Salaries are about 54500 EUR per year before taxes (35500 EUR after taxes).

Applications should be emailed to norbert.schuch@gmail.com, Subject: "Postdoc Application", and contain a full academic CV, a brief summary of research interests, and the contact data of two referees. Applications will be considered until the positions are filled.

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22.07.20
Statistical Mechanics and Condensed Matter Postdoc **Los Alamos** (LANL), New Mexico, USA;
Applications should be submitted by October 1st, 2020 for full consideration
https://lanl.jobs/los-alamos-nm/statistical-mechanics-and-condensed-matter-postdoc/6C9AFDCFEE3447D0946CAA10EDC20E75/job/?fbclid=IwAR0Urvy1hULAnF8cRqvj_1a8aepaEgkrw9Ft3T-yqWkby2sVq6Hu1zkk31n8

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10.07.20
The Physics Department of Ecole normale Supérieure **(Paris)** has the pleasure to let you know that chairs are now offered, for a beginning end of 2021, located at our International Centre for Fundamental Physics and its Interfaces (ENS-ICFP), Physics Department, Ecole normale supérieure (ENS), Paris, France

ENS Physics Department opens up two postdoctoral positions as JRC holders, for a two-year contract, with possible extension: one year for theoreticians and two years for experimentalists. In addition to a competitive salary, the position includes an attractive travel allowance, and dedicated research funds for experimentalists.

ENS Physics Department aims at recruiting outstanding candidates with international experience. Research activities can be experimental and/or theoretical, on the following themes:

Astrophysics
Biophysics: from cell to organism
Fundamental interactions
Quantum physics: from atoms to condensed matter
Soft matter, fluids and interfaces
Statistical and theoretical physics

Candidates are encouraged to make early contact with faculty to construct their project, and shall refer to these contacts in the research statement.

Application by October 31, 2020 on https://academicjobsonline.org/ajo/jobs/16534

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07.07.20
In the Faculty of Mathematics and Natural Sciences of the University of **Bonn**, the Institute of Physics at the Department of Physics and Astronomy invites applications for a Professorship (W3) for Experimental Physics: Solid-state Physics;

The research area of the professorship will be in the field of experimental solid-state physics, where there should be a relation to quan-tum technology. Possible topics include e. g. the investigation of novel correlated or topological matter, two-dimensional materials and layer structures, as well as the interaction of light and matter for the pre-paration and detection of novel quantum states. A participation in the Cluster of Excellence “Matter and Light for Quantum Computing” and the Collaborative Research Centre / Transregio 185 „OSCAR – Open System Control of Atomic and Photonic Matter“ is desirable.

Teaching according to the teaching commitment of the state of North Rhine-Westphalia is an integral part to this position. Giving lectures at all qualification levels is required. Therefore relevant teaching experience is expected.

The conditions of employment are according to § 36 Hochschulgesetz NRW.
The University of Bonn actively supports diversity and equal opportunities. The University of Bonn has been certified as a family-friendly university and offers a dual career programme. Its aim is to increase the proportion of women in those fields in which women are underrepresented and to place a special focus on promoting their careers. Therefore, the university specifically requests applications from suitably qualified women. Applications will be handled in accordance with the Equal Opportunities Act of North Rhine-Westphalia. Applications from suitably qualified people with severe disabilities that have already been verified or from people with an equivalent status will be particularly welcomed.

Applications with the usual documents (curriculum vitae, research plan, publication list, presentation of teaching activity, copies of university qualifications and certificates) are requested electronically in one PDF document by 20.08.2020 to the Fachgruppe Physik/Astrophysik, Endenicher Allee 11-13, 53115 Bonn, Germany (email: w3exp-condmat@physik.uni-bonn.de).

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06.07.20
Postdoctoral position in Physics of Condensed Matter and Complex Systems Group, Los Alamos National Laboratory, USA

WHAT YOU WILL DO
The Group of Condensed Matter and Complex Systems in the Theoretical Division of Los Alamos National Laboratory (LANL) has immediate postdoctoral position openings in the area of theoretical study of topological quantum materials. The opened positions provide an opportunity to pursue fundamental studies of the role of electronic correlation effects and topology in quantum materials.

WHAT YOU NEED

MINIMUM JOB REQUIREMENTS:
The successful candidate must have a strong skill, with an excellent scientific record of publications, in condensed matter theory and modeling of one or more aspects of topological properties (including topological superconductivity), two dimensional materials, quantum Hall systems, and/or strong correlation effects in quantum materials. Preference will be given to candidates with experience in using quantum many-body approaches to unravel the interplay between strong correlations and topology in quantum materials and/or with knowledge of quantum information science. The ability to work creatively and independently, as a part of a diverse team, is important. Strong communication and language skills, as evidenced by publications and cover letter, are required.

EDUCATION: Candidates must have a Ph.D. in theoretical condensed matter or quantum materials physics (completed within the last 5 years).

NOTES TO APPLICANTS: Please send a resume, publication list, research interests, a brief statement of future plans and the names of three references to:

Dr. Shizeng Lin
Email: szl@lanl.gov,
Phone: +1-505-665-8794

Review of applications will begin immediately and will continue until the position is filled. The position has an initial appointment of two years. Additional information on salary ranges and other benefits can be found online at https://www.lanl.gov/careers/career-options/postdoctoral-research/index.php?source=globalheadernav.

ADDITIONAL DETAILS:

New-Employment Drug Test: The Laboratory requires successful applicants to complete a new-employment drug test and maintains a substance abuse policy that includes random drug testing.
Candidates may be considered for a Director's Postdoc Fellowship and outstanding candidates may be considered for the prestigious Richard P. Feynman, Darleane Christian Hoffman, J. Robert Oppenheimer, or Frederick Reines Distinguished Postdoc Fellowships.

For more information about the Postdoc Program, go to

EQUAL OPPORTUNITY:

Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. All employment practices are based on qualification and merit, without regards to race, color, national origin, ancestry, religion, age, sex, gender identity, sexual orientation or preference, marital status or spousal affiliation, physical or mental disability, medical conditions, pregnancy, status as a protected veteran, genetic information, or citizenship within the limits imposed by federal laws and regulations. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an email to applyhelp@lanl.gov or call 1-505-665-4444 option 1.

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24.06.20
We would like to draw your attention to a number of new PhD and postdoc positions in quantum science at Aarhus University. Within the framework of our newly established CENTER FOR COMPLEX QUANTUM SYSTEMS (CCQ) we are currently looking for excellent applicants in experimental and theoretical quantum physics. The Center will offer unique research and training activities and provide ample opportunities for COLLABORATIONS ACROSS EXPERIMENT AND THEORY, as well as different topics, FROM MANY-BODY PHYSICS, AND QUANTUM OPTICS, TO QUANTUM INFORMATION SCIENCE, AND AMO PHYSICS OF ULTRACOLD ATOMS AND IONS.

More information about the positions and how to apply can be found for the postdoc positions at https://au.career.emply.com/ad-preview/k6nqov/en

and for the PhD positions at

THE DEADLINE IS AUGUST 1, 2020.

Not all vacant positions may be filled at once within this call, and we most happily receive emails from potential candidates for later recruitment beyond this date.

We would be very grateful if you could forward this information and/or the attached flyer to interested candidates. Please, feel free to approach us in case you have any questions.

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19.06.20
A permanent position of research engineer in scientific computing is proposed through a CNRS external competition at the Laboratory of Theoretical Physics (LPT-UMR 5152) and at the Institute of Research in Astrophysics and Planetology (IRAP-UMR 5277) in Toulouse. It is a permanent position provided by the French government. It is open to everyone, regardless of citizenship. Candidates must hold a doctorate or an engineering diploma (some other degrees are possible). The competition can be viewed at: http://www.dgdr.cnrs.fr/drhita/concoursita/consultor/resultats/consultor.htm
To apply, the prospective candidate should go to http://www.dgdr.cnrs.fr/drhita/concoursita/
There is also a candidate guide explaining how to apply. The corresponding competition is No. 53, which contains two similar positions, including the one of the LPT-IRAP and another position at Laboratory M2P2 Marseille. It is possible to apply for both positions, specifying an order of preference, or only one of them.

**The deadline is July 2.**

For any detailed information on this position, you can contact:
- At LPT: Sylvain Capponi: capponi@irsamc.ups-tlse.fr
- At IRAP: François Lignières: francois.lignieres@irap.omp.eu

**Job profile:**
The expert in scientific computing will exercise his activity within the framework of a shared function between the Laboratory of Theoretical Physics (LPT) at 50% and the Research Institute in Astrophysics and Planetology (IRAP) at 50%. He/she will provide expertise in the use of algorithmic/mathematical methods and their adaptation to different machine architectures as well as the development, optimization, maintenance and dissemination of parallel codes to numerically solve quantum or classical physics problems in at the heart of the activity of the LPT and the problems of dynamics of astrophysical and physical fluids of plasmas at the heart of the activity of IRAP. He/she will be placed under the hierarchical responsibility of the Director of the LPT.

**Activities:**

**MAIN ACTIVITIES:**
- Develop with researchers highly parallel scientific codes optimized for very high performance computers
- Design, develop or adapt methods in scientific computing
- Participate in the promotion of the work, in particular by disseminating to the scientific community codes / libraries developed at IRAP and LPT.
- Ensure a technological watch on the evolution of hardware architectures (GPU ...) and numerical methods in close connection with regional and national data centers and in collaboration with other IT staff from the Institute of Research in Atomics and Molecular Complex Systems (IRSAMC) and the Midi-Pyrénées Observatory (OMP)
- Ensure the transfer of knowledge, know-how and good practices to researchers: participate in the training of users of high performance computing, disseminate and enhance the methods and tools developed.

**ASSOCIATED ACTIVITIES:**
- Participate in national and international research projects and associated publications
- Supervise or co-supervise students (interns, PhD students) or engineers on numerical projects
- Present the codes / methods developed in dedicated seminars / conferences
- Participate in scientific activities around computation at the OMP / IRSAMC level

**Skills:**

**General, theoretical or disciplinary knowledge:**
- General knowledge of applied mathematics in particular in the field of numerical analysis: linear algebra, partial differential differential equation (PDE), stochastic calculations ...
- In-depth knowledge of programming techniques (including Fortran, C, C++ and Python languages), parallelization (MPI, OpenMP ...) and optimization
- General knowledge of scientific computing program libraries
- General knowledge of architectures of computers and distributed systems and operating systems
- General knowledge of software quality tools promoting the user Interface

**Operational know-how:**
- Understand and analyze the scientific problem posed
- Identify numerical methods, optimization and programming techniques as well as validation tests adapted to scientific issues
- Implement programming languages (Fortran, C, C++ and Python)
- Implement project management and management methods
- Work in interaction with one or more research teams
- Autonomy, taking initiative
- Technical English: read, spoken, written. Level B "independent user" according to the common European frame of reference for languages.

**Background:**
The LPT (50 people) is involved in many fields of physics, and is a heavy user of intensive scientific computing on computing centers at the LPT, or at a regional (CALMIP) and national (GENCI / IDRIS) level. The codes, often highly parallel, are mainly produced by LPT researchers and their collaborators and relate to quantum mechanical calculations (Monte-Carlo, linear algebra, density functional ...) in electronic physics / magnetism of condensed matter and cluster physics, but also in classical physics (Monte-Carlo, molecular dynamics ...), for example in biophysics and soft matter. The codes must be designed from the outset for very high performance machines or optimized a posteriori.

IRAP (300 people) has a strong theory / modeling component for which numerical simulation is the main tool. This activity is crucial for the exploitation of astrophysical data and in particular that of space missions in which IRAP is strongly involved. Researchers develop and use multidimensional simulation codes in dynamics of astrophysical fluids and plasma physics that operate on massively parallel machines. The engineer will reinforce IRAP’s capacity to develop and perpetuate digital codes at the best international level.

The engineer will work in a local environment (IRSA MC federation for LPT and OMP for IRAP) very rich in numerical projects and also including the CALMIP computing center. He / she will be encouraged to follow training courses and to participate, thanks to team funding, in scientific conferences and to publish his/her results. Occasional and short trips are expected in order to participate in collaboration meetings or workshops, in France and abroad.

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18.06.20
One PhD student and one Postdoc in the framework of the Collaborative Research Center
ISOQUANT (Isolated quantum systems and universality in extreme conditions) in Heidelberg.
The earliest starting date is July 2020.
More information can be found here:
https://www.kip.uni-heidelberg.de/user/marting/
https://dev-isoquant.frosch.gift/ (Positions are in Projects A05 and (new) Project A06)

Priv. Doz. Dr. Martin Gärttner
Kichhoff-Institut für Physik
Im Neuenheimer Feld 227
69120 Heidelberg, Germany
and
Institut für theoretische Physik
Philosophenweg 12
69120 Heidelberg, Germany

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15.06.20
Postdoctoral position on numerical approaches to low-dimensional flat-band systems;
**Description:** The theory groups of Annica Black-Schaffer and Adrian Kantian at the Department of Physics and Astronomy at Uppsala University invite applications for a joint postdoctoral position on many-body physics in flat-band systems with a special focus on numerical approaches, with funding provided by the Knut and Alice Wallenberg Foundation (KAW) and the European Research Council (ERC).

**Project:** The aim of the project is to advance the theory of many-body quantum systems realized in low-dimensional flat-band and partial flat-band lattices. A special focus will be on finding and characterizing potential superconducting instabilities in these systems and their competition with alternative orders. A major tool in this
project will be the use of density matrix renormalization group (DMRG) approaches as well as advanced analytical mean-field techniques.

Profile: Scientific curiosity, a strong drive for original research, scientific rigour, and self-initiative are vital requirements for this position, as is a collaborative nature. Work in this position will involve substantial use of existing DMRG codes. This project thus seeks an applicant with a solid background and experience either in matrix product state-based methods and/or other types of numerical many-body techniques, complemented by an extensive understanding of the physics of strongly correlated systems in general. On the technical side, substantial programming abilities and experience in the use of Linux/Unix-based HPC computational clusters are essential. Knowledge of and experience with C++ would be a major asset.

Team and environment: This position will be embedded in the groups of the two joint PIs. The two groups have extensive research activities on many-body systems in both solid state matter and ultracold atomic gases, especially with a focus on unconventional superconductivity in bulk as well as in low-dimensional systems. Techniques used range from analytical Green’s functions techniques and many-body dynamics in and out of equilibrium to DMRG and dynamical mean-field theory (DMFT) calculations. Together, the groups currently comprise seven postdoctoral researchers and six Ph.D. students.

Uppsala University is a comprehensive research-intensive university with a strong international standing. Its mission is to pursue top-quality research and education. Uppsala University has 42,000 students, 7,000 employees and a turnover of SEK 6.7 billion.

More information on the groups and their activities can be found on http://materials-theory.physics.uu.se/blackschaffer/ and http://materials-theory.physics.uu.se/kantian/

Prerequisites: A PhD degree in theoretical physics or equivalent. Fluency in both written and spoken English is an absolute prerequisite. Ability to communicate results clearly and concisely, directly with colleagues, as well as with outside collaborators and at conferences.

Position: This position is provided in the form of a tax-free postdoctoral scholarship stipend for 2 years, with the possibility of an additional third year. Comprehensive healthcare is provided with only a small co-pay (<2 000 SEK/year).

How to apply: The application file should contain:

(1) Letter describing the applicant and her/his qualifications and research interests
(2) CV
(3) Full publication list
(4) Contact information for at least three references
(5) Copies of relevant degrees

Please direct all queries regarding this advertisement, as well as the application package in the form of a single PDF to flatbandphysics.uppsala@gmail.com

Uppsala University is striving to achieve a more even gender balance and women are especially encouraged to apply.

Starting date: Fall 2020 or as otherwise agreed.

Review of applications will begin August 3rd, 2020 and continue until the position is filled.

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11.06.20

Multiverse Computing (www.multiversecomputing.com) is a Spanish-Canadian startup focused on providing quantum and quantum-inspired software solutions for the financial industry. Our team of experts is well-known for innovative approaches to intractable financial problems. On the quantum side, Multiverse relies on a myriad of different approaches, including Universal Quantum Computing, Quantum Annealing, and Gaussian Boson Sampling. On the front of quantum-inspired methods, we exploit the power and versatility of Tensor Network algorithms, among other approaches. We are committed to attract the best talent in the world, and to change the way finance is done.
At Multiverse we are currently expanding our team, and looking to fill in the following technical positions at our offices in San Sebastian (Spain) and Toronto (Canada):

- Quantum and quantum-inspired developer
- Quantum software developer
- Financial engineer
- Graph problems and optimization expert
- Machine learning scientist

Details about all the positions and application procedure can be found in the following link: [http://www.multiversecomputing.com/careers.html](http://www.multiversecomputing.com/careers.html)

Roman Orus
Ikerbasque Research Professor
Donostia International Physics Center (DIPC)
Paseo Manuel de Lardizabal 4
20018 Donostia - San Sebastian (Gipuzkoa), Spain

Phone: +34 943 01 89 61
Fax: +34 943 01 56 00

Email: roman.orus@dipc.org
Web: www.romanorus.com

18.05.20
A postdoctoral position is available within the STRUCTURES Excellence Cluster at the University of Heidelberg.

The Many Body Theory group of Dr. Tilman Enss, in collaboration with Dr. Nicolò Defenu and with the experimental group of Prof. Matthias Weidemüller, offers a postdoc position to work on the theory of (dynamical) critical phenomena on inhomogeneous graphs, in connection with the physics of Rydberg atoms.

The offer is for a two-year postdoc position starting October 2020. The postdoc will work in close collaboration with the members of the Many Body Theory group. The successful candidate shall have experience in numerical techniques for critical phenomena and/or quantum dynamics.

[https://www.thphys.uni-heidelberg.de/~enss/](https://www.thphys.uni-heidelberg.de/~enss/)

The work will be conducted in the framework of the STRUCTURES excellence cluster recently established at the University of Heidelberg. The STRUCTURES collaboration addresses specific, highly topical questions about the formation, role, and detection of structure in a broad range of natural phenomena, from subatomic particles to cosmology, and from fundamental quantum physics to neuroscience.

[https://www.structures.uni-heidelberg.de/](https://www.structures.uni-heidelberg.de/)

For more information regarding the position, prospective applicants are encouraged to contact Nicolò Defenu (defenu@thphys.uni-heidelberg.de) or Tilman Enss (enss@thphys.uni-heidelberg.de).

Priv.-Doz. Dr. Tilman Enss
Postdoctoral position in condensed matter theory at Ames Laboratory, Iowa, USA.
I am writing to advertise a postdoctoral position in condensed matter theory at Ames Laboratory, Iowa, USA, to perform research in the area of quantum information and computational approaches to strongly correlated materials. The work will be performed as part of a research team led by me, Peter P. Orth, and Dr. Yongxin Yao. The position is funded by a DOE Quantum Information Science (QIS) initiative in materials research.

To guarantee consideration, applications must be submitted prior by May 22, 2020, but later applications might still be considered until the positions are filled. Details of the job description and how to apply are found here:


Peter P. Orth
Iowa State University
A521 Zaffarano Hall, phone: (515)-294-4356 [1]
Website: https://orth.physics.iastate.edu/ [2]

Links:
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[1] tel:(515)-294-4356

I would be grateful if you could bring this announcement of an open postdoctoral position at Northeastern University, Boston, USA to the attention of potential candidates.

Applications are invited for an open postdoctoral position in correlated electron theory to begin on or before September 1, 2020. Recent topics of interest in the group have focused on interaction effects in topological phases of matter, quantum magnetism, superconductivity, and non-equilibrium systems.

The Department of Physics at the Northeastern University offers rich opportunities for collaborations with the Feiguin and Bansil groups, and also within the Boston area, with Harvard, MIT, Boston University, and Boston College in extremely close proximity.

Interested candidates should send a brief statement of research interests/experience, a CV with a list of publications, and arrange to have three letters of recommendation sent to: g.fiete@northeastern.edu
Review of applications will begin immediately, and will continue until the position is filled.

Greg Fiete
Professor of Physics
https://cos.northeastern.edu/people/gregory-fiete/
Gregory Fiete - Northeastern University College of Science<https://cos.northeastern.edu/people/gregory-fiete/>

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06.05.20
Doctoral and postdoctoral positions, Aalto University;
A Ph.D. student position and a postdoctoral researcher position are available in my group, to work in the field of superconducting circuit QED.
For applications, please see the full announcements as attachments or online at:


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28.04.20
**Postdoctoral opening @ ENS-Lyon (France): Theory of quantum correlations in AMO quantum simulators**
The scalable production of many-body entangled states is the central goal of most quantum technologies of new generation (such as quantum simulation, quantum computing and quantum metrology). Such a goal poses a fundamental challenge to experiments, requiring an extreme level of control on quantum many-body systems (ensembles of ultra-cold atoms, complex quantum circuits, etc.). But theoretical physics is also faced with a crucial challenge, namely that of developing a versatile toolbox for the certification of quantum devices, with two main goals: 1) the efficient encoding of quantum many-body states with classical computers (at least in some limiting cases); and 2) the development of realistic diagnostic tools for the detection of quantum entanglement, and the reconstruction of its spatial structure.

This postdoctoral position is aimed at developing a vigorous theoretical activity on the above aspects, in close relationship with quantum simulators based on atomic-molecular-optical (AMO) physics. We shall particularly focus on the case of quantum simulators of lattice spin models, either with $S=1/2$ (as realised by trapped-ion and Rydberg-atom experiments) or with larger spins (as realised by magnetic-atom - Cr, Er, and Dy - experiments). The broad goal of the project is therefore two-fold:

A) developing numerical tools for the real-time simulation of quantum lattice Hamiltonians (based on variational entangled states, as well as semi-classical approaches); the main goal will be the simulation of the entangling unitary dynamics governed by quantum spin Hamiltonians with power-law interactions;

B) analysing the non-equilibrium quantum many-body states using entanglement witnesses for bipartite and multipartite entanglement, as well as many-body Bell inequalities.

The postdoctoral appointment — under the joint supervision of Tommaso Roscilde and Fabio Mezzacapo at the Laboratoire de Physique, ENS of Lyon — offers a unique opportunity to develop skills both in the numerical simulation of non-equilibrium quantum many-body systems; as well as in the certification of entanglement and nonlocality in complex many-body states. The appointment is funded within the QuantERA project “MAQS - Magnetic Atom Quantum Simulator”, joining a consortium of 7 European partners (both experimental and theoretical), and offering therefore ample opportunities for international collaborations and for experiment-theory synergies.
The postdoctoral candidate should have a solid background in quantum mechanics; and working experience either with numerical simulations of quantum many-body systems; or with quantum information at the interface with quantum many-body physics (ideally with both).

Candidates are requested to send a motivation letter and a CV via e-mail (tommaso.roscilde@gmail.com), and arrange for at least two letters of recommendation to be sent to the same address. Deadline for application is **May 24th, 2020** — but later applications can be considered as well until the position is filled.

The appointment is for **two years**, with an earliest starting date set to Sep. 14th, 2020. Yet later starting dates can also be negotiated. **In light of the COVID-19 epidemic, the starting date is tentative, and it will strongly depend on the working conditions — in particular, physical access to the research facilities — that the host institution (Ecole Normale Supérieure de Lyon) will be able to offer in the near future, while complying with sanitary restrictions.**

**Tommaso Roscilde** - Associate Professor (Maître de Conférences HDR) Laboratoire de Physique - Ecole Normale Supérieure de Lyon
46 Allée d’Italie, 69007 Lyon, France
Tel: +33-4-72728519
e-mail: tommaso.roscilde@gmail.com
URL: https://sites.google.com/site/roscilde/

06.04.20
A Lectureship in Computational Physics is being advertised for **Coventry**. The process was started before the Corona virus crisis came so I have no idea of how the post will be impacted. Anyway, in case you know of someone or someone who knows someone, I include a link below. Deadline is 30 April 2020.
A statistical physicist with some potential to make impact outside of academia and to bring in grants would be welcome.

Here is the link:
https://www.jobs.ac.uk/job/BZQ573/lecturer-in-computational-physics

26.03.20
W2-Professorship “Theoretical Quantum Condensed Matter”, Universität **Leipzig**;
We are looking for an internationally renowned researcher in the field of quantum theory of condensed matter. The main research topics can be in the field of dynamics and manipulation of quantum systems, topological phenomena, solid state implementation of quantum information, or quantum transport. The willingness to cooperate with other groups at the Institute for Theoretical Physics and at the Felix Bloch Institute for Solid State Physics is assumed. We expect the applicant to participate in initiatives for future coordinated research projects within the framework of the research profile areas “Complex Matter” and “Mathematical and Computational Sciences”. Rights and obligations of the jobholder are within the Saxonian university law (Sächsisches Hochschulfreiheitsgesetz, SächsHSFG) and the Saxonian public service task regulation (Sächsische Dienstaufgabenverordnung, DAVOHS). Applicants must meet the requirements of § 58 SächsHSFG. The University of Leipzig emphasizes the equality of women and men. Handicapped applicants are encouraged to apply and given preference if equally qualified.
Applications with the usual documents, enclosing detailed CV, a list of the scientific work and academic teaching including available records of teaching evaluations and a certified copy of the certificate of the highest acquired academic degree should be sent in printed or a digital format as one PDF-document, before 31 March 2020 to:
Universität Leipzig
27.02.20

Postdoctoral Fellowship in Condensed Matter Theory;

Qualified candidates are encouraged to apply for a postdoctoral position in Condensed Matter Theory in the Center for Electronic Correlations and Magnetism at the University of Augsburg. This position is intended to start on August 15, 2020. Collaboration in the ongoing Research Program "From Electronic Correlations to Functionality" (https://www.trr80.de) is expected. Preference will be given to candidates with research interests in ordering phenomena in correlated electron systems, topological states of matter, and spin-orbit coupling physics. The official announcement (in German) of this position at the University of Augsburg is posted at https://www.uni-augsburg.de/de/jobs-und-karriere/stellenangebote/2020/01/30/1379/

Applicants should forward their CV, publication list, and a summary of research interests to Professor Dr. Arno P. Kampf
Institut fuer Physik
Universitaet Augsburg
E-mail: kampfa@physik.uni-augsburg.de

Applications are expected to be accompanied by at least two recommendation letters.

24.02.20

Open Postdoctoral Researcher Positions in Computational Condensed Matter Theory at Department of Applied Physics, The University of Tokyo, or Institute for Science and Engineering, Waseda University in Tokyo, Japan

[Position summary]
Applications are invited for postdoctoral researcher positions at Department of Applied Physics, the University of Tokyo, or Research Institute for Science and Engineering, Waseda University. The postdoctoral researchers will conduct research on mechanism of strongly correlated superconductivity and/or nature of strongly-correlated topological materials by taking advantage of large-scale parallel computers flexibly with ab-initio electronic structure approaches and/or data-driven approaches based on spectroscopic data provided by collaborations with experimentalists.

[Location of institution]
Hongo campus of the University of Tokyo or Nishi-Waseda campus of Waseda University, Tokyo, Japan

[Term]
One year with possibility of extension after review up to March 2023

[Expected start date]
From June 1st, 2020 or later

[Required qualification]
Ph. D. in a relevant field such as condensed matter theory, and computational physics

In this project, ample large-scale parallel computer resource is available. Tight collaborations with expert experimentalists on strongly correlated electron systems for the spectroscopic methods (such as angle-resolved photoemission, scanning tunnel microscope, and resonant inelastic X-ray scattering) are possible if necessary.

Applicants who are strongly motivated to work on one or several of the above diverse physical subjects or development of numerical methodologies for strongly correlated electron systems are highly welcome.

[Required application materials]
1. Curriculum vitae with photo and email address
2. Summary of research achievement (around two pages, letter size)
3. Publication list and list of invited talks
4. Name(s), affiliation(s), and email address(es) of one or more person(s) who may provide a reference letter
5. Research interests and plan for strongly correlated electron systems or numerical methodology (around one page, letter size)
6. Copies of main published papers up to three

[Application details]
The open position will be closed when it is filled. All applicants are encouraged to apply in the earliest convenience. Successful applicants will be contacted for a job interview after a screening process. Submit the application with all the required materials via email. The materials should be converted into pdf format (hopefully in a single pdf file) whose size should be less than 10 MB in total, in which the materials should be arranged in order from 1. to 5. Papers may be attached as separate pdf files.

Inquiry and application to;
yamaji@ap.t.u-tokyo.ac.jp
(Youhei Yamaji, Department of Applied Physics, University of Tokyo)
or
imada@ap.t.u-tokyo.ac.jp
(Masatoshi Imada, University of Tokyo and Research Institute for Science and Engineering, Waseda University)

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24.02.20
PostDoc at UB for developing tensor networks algorithms for quantum, Universitat de Barcelona, Spain;
Applications are invited for one or two postdoctoral positions in the field of Quantum Computation. The successful candidate will work with Dr. Sofyan Iblisdir and Dr. Luca Tagliacozzo, at the University of Barcelona (Spain) in quantum computation and related topics, from developing and characterizing new quantum algorithms, to their classical simulation, to the characterization of noise and imperfections in specific experimental implementations, to quantum machine learning. Besides quantum computation, the group has strong expertise in the theory of many-body quantum systems at and out of equilibrium, and in tensor networks techniques.

The positions are for a period of 1 year that will be possibly extended to 2 years depending on performances and availability of funding. The positions should be filled as soon as possible. Applicants are expected to have a doctoral degree in Physics, Computer Science, Mathematics, or a related discipline before the starting date of the position, and have previous expertise in one (or more) of the following areas: quantum computation, quantum information, tensor networks, machine learning, quantum many-body systems, condensed matter physics, quantum field theory. Applicants should have a strong interest in solving challenging problems, as well as a proven record of research, including publication of original work in at least one of the above areas. Excellent scientific writing ability and good communication skills are essential.

Applications should be sent to Dr. Sofyan Iblisdir and should include: 1) a motivation letter; 2) a curriculum vitae including a list of publications; 3) a research statement; 4) the name and email of two references. All qualified applicants will receive equal consideration without regard to appearance, beliefs, sex, sexual orientation, gender identity, national origin, disability or age. For full consideration, applications should be submitted by the 10th of March 2020.

Please direct informal enquiries to:
Dr Sofyan Iblisdir: sofyan.iblisdir(at)fqa.ub.edu
Dr Luca Tagliacozzo: luca.tagliacozzo(at)fqa.ub.edu

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19.02.20
Postdoctoral opening in Condensed Matter Theory at the CNMS of Oak Ridge National Laboratory;
Experience with computational studies of models for strongly correlated electrons is required. Preferred qualifications include experience with density matrix renormalization group, exact diagonalization, and/or Monte Carlo techniques, to calculate either static or time/omega dependent quantities, such as the dynamical spin structure factor S(q,omega) to contrast theory vs neutron scattering experiments.
Materials of interest include high critical temperature superconductors, spin liquids, compounds with robust spin-orbit coupling, topological systems, quasi one-dimensional chains and ladders, and several others.

To apply, please use the link
HTTPS://CAREER4.SUCCESSFACTORS.COM/SFCAREER/JOBREQCAREER?JOBID=2698&COMPANY=UTBATTELLEP&USERNAME=

Screening of applicants will start immediately.

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18.02.20
We are offering two distinguished Postdoc positions in the field of quantum many-body physics as part of the established DFG funded research training group RTG 1995 (https://www.rtg1995.rwth-aachen.de/cms/~ggsp/RTG1995/idx/1/). The position will be equipped with a travel grant and includes the possibility to supervise doctoral researchers to foster earlier academic independence of the successful candidates. Any topics in condensed matter theory are welcome and collaborations with all PIs (e.g. Carsten Honerkamp, Stefan Wessel, Maarten Wegewijs, Herbert Schoeller, Dante Kennes, Volker Meden) are encouraged. The applicant should have a background in quantum many-body theory, preferably, with experience in computational methods. The position will initially be for two years but can be extended.

Interested candidates are encouraged to contact Volker Meden or Dante Kennes at meden@physik.rwth-aachen.de or dante.kennes@rwth-aachen.de

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17.02.20
The University of Stavanger invites applicants for a Ph.D fellowship in Physics at the Faculty of Science and Technology, Department of Mathematics and Physics. More information on the position can be obtained from Professor Anders Tranberg, e-mail: anders.tranberg@uis.no or Head of Department Bjørn H. Auestad, e-mail: bjorn.auestad@uis.no. https://www.jobbnorge.no/en/available-jobs/job/182454/phd-fellowship-in-physics

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11.02.20
Faculty position in strongly correlated systems (theory) - University of São Paulo, BRAZIL

Announcement of an open tenure-track faculty position at the Institute of Physics, University of São Paulo, Brazil, Level MS-3, RDIDP (Full-time dedication to teaching and research).

The Director of the Institute of Physics at the University of São Paulo invites applications for a full-time tenure-track faculty position in the field of “Theory of strongly-correlated systems in condensed-matter physics” to be appointed in 2020. Eligible candidates should have a Ph.D. and postdoctoral research experience. Applicants should possess an outstanding potential to establish an independent research program and a commitment to teach undergraduate and graduate courses. This position comprises full-time dedication to research and teaching, level MS-3, RDIDP. Starting salary is R$11.069,17 (non-negotiable).
Application deadline is March 16, 2020, at 11:59 p.m. (GMT -3, Brasilia time).

Additional information on the selection procedure and on the on-line application can be found at:
http://portal.if.usp.br/ataac/pt-br/node/6006

11.02.20
Applications are invited for one or two postdoctoral positions in the field of Quantum Computation. The successful candidate will work with Dr. Sofyan Iblisdir and Dr. Luca Tagliacozzo, at the University of Barcelona (Spain) in quantum computation and related topics, from developing and characterizing new quantum algorithms, to their classical simulation, to the characterization of noise and imperfections in specific experimental implementations, to quantum machine learning. Beside quantum computation, the group has strong expertise in the theory of many-body quantum systems at and out of equilibrium, and in tensor networks techniques.

The positions are for a period of 1 year that will be possibly extended to 2 years depending on performances and availability of funding. The positions should be filled as soon as possible. Applicants are expected to have a doctoral degree in Physics, Computer Science, Mathematics, or a related discipline before the starting date of the position, and have previous expertise in one (or more) of the following areas: quantum computation, quantum information, tensor networks, machine learning, quantum many-body systems, condensed matter physics, quantum field theory. Applicants should have a strong interest in solving challenging problems, as well as a proven record of research, including publication of original work in at least one of the above areas. Excellent scientific writing ability and good communication skills are essential.

Applications should be sent to Dr. Sofyan Iblisdir and should include: 1) a motivation letter; 2) a curriculum vitae including a list of publications; 3) a research statement; 4) the name and email of two references. All qualified applicants will receive equal consideration without regard to appearance, beliefs, sex, sexual orientation, gender identity, national origin, disability or age. For full consideration, applications should be submitted by the 10th of March 2020.

Please direct informal enquiries to:
Dr Sofyan Iblisdir: sofyan.iblisdir(at)fqa.ub.edu
Dr Luca Tagliacozzo: luca.tagliacozzo(at)fqa.ub.edu

10.02.20
A 2-year postdoctoral appointment is offered to work in the groups led by Roman Orus and Fernando de Juan at DIPC, in Donostia - San Sebastian, Spain. We are looking for a candidate interested in the physics of strongly correlated electron systems and unconventional superconductivity, in the modeling of such systems with numerical techniques, and in particular with tensor network methods. We aim to describe the low-temperature ground states of a variety of systems such as twisted bilayer graphene or doped topological insulators, and our interest is to work towards fermionic finite-temperature tensor network simulations in two and three dimensions.

Further details about the position and the application process can be found here:
Quantum Information Science faculty position Leiden University, Lorentz Institute;

The Leiden Institute of Physics is searching a new faculty member in the area of quantum information science, to be appointed within the Lorentz Institute for theoretical physics. For this position we are particularly interested in candidates who can contribute to our research initiative in quantum algorithms and their applications to problems in physics, chemistry, and computer science.

We offer a tenure track appointment as assistant professor that upon successful performance will lead to promotion to a tenured position as associate professor and upon continued growth to promotion to full professor. We offer a clear and inviting career path, support in the development of your personal and professional skills, and an attractive start-up package. We actively support learning Dutch through departmentally funded courses.

Locally the position will be embedded in the Applied Quantum Algorithms group, that involves researchers from the Leiden Institutes of Physics and Computer Science. Nationally we are a partner of the Quantum Software Consortium, a multidisciplinary group of researchers from the universities of Amsterdam, Leiden and Delft, with backgrounds in computer science, mathematics, engineering and physics. We share students and postdocs with QuTech in Delft, where we can try out ideas on quantum hardware. The Lorentz Institute is affiliated with the Lorentz Center, which hosts workshops on topics of current interest and helps create a stimulating research environment.

We encourage candidates to apply before March 15, 2020 and applications will be reviewed through 2020 until the position is filled. Please contact Carlo Beenakker <beenakker@ilorentz.org> for information and to apply. We would need a cover letter, a CV with a link to your Google Scholar page, a research plan, and names of three persons who can be contacted for a reference.

Links:
official vacancy announcement: https://www.lorentz.leidenuniv.nl/QI_ad.pdf
Leiden Institute of Physics: https://physics.leidenuniv.nl/
Lorentz Institute: https://ilorentz.org/
Applied Quantum Algorithms initiative: https://aqa.universiteitleiden.nl/

PhD and Postdoc Positions Condensed Matter Theory, Aix-Marseille University's Center for Interdisciplinary Nanoscience, Marseille;

The Center for Interdisciplinary Nanoscience of Marseille (CINaM) invites applications for a 3-year doctorate position and a 2-year postdoc position in theoretical condensed matter physics, starting on September 1st, 2020. CINaM is located on the Luminy campus in the heart of the Calanques national park, and has a broad scope of interest in nanoscience, covering physical chemistry of surfaces and interfaces, molecular engineering and functional materials, as well as novel two-dimensional and magnetic materials using advanced characterization and nanofabrication techniques. The Theory and Numerical Simulation group (TSN) gathers a dozen of lead researchers and faculty addressing various aspects of multiscale modeling, from materials growth to morphology, to quantum transport. Close proximity with experimental groups and with the Center for Theoretical Physics constitutes an exceptional environment for developing disruptive research.

The advertised positions are funded by Aix-Marseille’s Academy of Excellence (A*Midex) and aims to develop novel theories on the following topics:
• Spin and magnon transport in non-collinear antiferromagnets
• Multiscale charge/spin/heat transport in complex, porous materials
• Linear and nonlinear quantum transport in topological heterostructures
• Valleytronics in novel van der Waals heterostructures

Strong interactions with theoretical and experimental groups in the Center and abroad are expected. Solid academic and research backgrounds are required. Application: Letter of interest, detailed CV, list of publications, three recommendation letters. PhD candidates must hold an MSc degree in Physics or Materials Science. Postdoc candidates will explicitly address the qualifications for this position in their letter of interest and briefly present innovative research projects they wish to develop during their stay.

The applications should be submitted by e-mail to Dr. Aurélien Manchon, manchon@cinam.univ-mrs.fr

01.02.20

At the Karlsruhe Institute of Technology (KIT), there are two open post-doctoral positions in condensed matter theory. Each of the positions are for the duration of at least two years. Possible research directions include the theory of quantum materials, strongly correlated phases, and magnetic skyrmion textures. The successful candidates are expected to have a strong background in the theory of condensed matter, and they will enjoy interactions with colleagues in theoretical as well as experimental physics. Review of applicants will begin immediately and continue until the positions are filled. Interested applicants should send a full CV, a statement of research interests, and a list of publications in electronic form to markus.garst@kit.edu.

21.01.20

Joint Post-Doctoral Position in Condensed Matter Theory at University of British Columbia and University of Tokyo;

Stewart Blusson Quantum Matter Institute (SBQMI), University of British Columbia (UBC) and Institute for Solid State Physics (ISSP), University of Tokyo (UTokyo) have one post-doctoral position in condensed matter theory as a part of activities of Max Planck-UBC-UTokyo Center for Quantum Materials. The successful candidate will be employed at SBQMI, UBC (hosted by Marcel Franz) and expected to spend significant period of time (3-6 months per year, at mutually convenient timing) at ISSP, UTokyo (hosted by Masaki Oshikawa) with full support of travel and local expenses for visits to ISSP. We are looking for an outstanding person with a strong background in theory of quantum materials and overlapping research interest with both hosts, such as topological phases and quantum dynamics in many-body systems. The successful candidate will also enjoy interaction with other members of both institutes, including experimentalists. The position will be funded by SBQMI and Japan Society for Promotion of Science KAKENHi Grant No. 19H01808 "Scaling of the fluctuation of polarizations and quantum dynamics in gapless phases" through ISSP.

The position is for 2 years starting fall 2020 and could be extended to the 3rd year.

To apply, please provide:
- Brief cover letter, including the names of those who will provide recommendations. Also please specify Franz-Oshikawa collaboration in the letter.
- Curriculum Vitae, including full publication list;
- A brief research statement
- 3 letters of recommendation (to be sent directly by your referees).

The application materials should be submitted to mp-ubc-ut@fkf.mpg.de


20.01.20
Full Professor Position in Theoretical Physics at LPTM CY Cergy Paris Université, Cergy-Pontoise, France

We expect the opening of a Full Professor position at the Theoretical Physics and Modelisation Laboratory (LPTM), Physics Department, CY Cergy Paris Université, Cergy-Pontoise, France.

Position to start September, 1st 2020.

The position is expected to be endowed with a 2/3 teaching-duties exemption for 3 years (yielding the teaching duties to 64 hrs instead of 192 hrs). We are looking for outstanding candidates with a profile primarily in Complex Systems, Computational Neurosciences, Soft Matter; and/or Probabilities, Stochastic dynamics and Integrable Systems.

More details can be found here: https://euraxess.ec.europa.eu/jobs/474697

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17.01.20

Postdoctoral research position in Quantum Information Theory at Brookhaven National Laboratory;

The Quantum Computing Group at Brookhaven National Laboratory's Computational Science Initiative invites applications for a postdoctoral research associate position in theoretical quantum information science / condensed matter physics, with a start date of Summer/Fall of 2020. The successful candidate will work closely with Layla Hormozi and other members of the group on topics related to quantum error correcting codes and topological phases of matter. The term of employment for this position will be for two years.

Interested candidates should apply online at https://jobs.bnl.gov/job/upton/postdoctoral-research-position-in-quantum-information-theory/3437/14749534 or contact Layla Hormozi at hormozi@bnl.gov with any questions.


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13.01.20

Postdoc position in condensed matter theory at Niels Bohr Institute (Copenhagen);

Niels Bohr Institute (University of Copenhagen) is currently seeking a Postdoc in theoretical condensed matter physics, who will work in the theory group of the Center for Quantum Devices (QDev). I kindly ask you to share this opening with potential candidates.

The research project is focused on the modelling of topological phases of matter, with the aim of designing platforms for the creation and manipulation of non-Abelian anyons.

Particularly welcome are candidates with former experience in the study of strongly-correlated solid state or ultracold atom models.

The appointment duration is two years.

All applications should be submitted electronically on the following website, where further information can be found: https://employment.ku.dk/all-vacancies/?show=150967


Dr. Michele Burrello
NBIA and QDEV, Niels Bohr Institute
Copenhagen University
Vibenshuset, Lyngbyvej 2
2100 Copenhagen, Denmark

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13.01.20
Theoretical Postdoc Position at BEC Center in Trento;
We are presently offering a 2-year post-doctoral position at the BEC Center in Trento on the theory of ultra cold gases, with a focus on transport properties in Hubbard models. The research work will be carried out in the framework of an interdisciplinary project funded the Italian Research and University Ministry aiming at creating a bridge between cold gases and heterostructures. The consortium involved in the project comprehends: BEC Centre in Trento (Menotti and Recati), LENS in Florence (Roati), University of Trento (Giorgini), University of Camerino (Pilati and Strinati), Politecnico of Milano (Dal Conte), SISSA/ISAS (Capone), University of Brescia (Giannetti). Consideration of applications will begin immediately.

The position is meant to start thereafter as soon as possible and in any case not later that August 2020.

If you are aware of any possible motivated candidate, please, forward the present email to them.

Interested candidates should contact us via email or phone at:
email: alessio.recati@unitn.it
phone: +39 0461 283926

Dr. Alessio Recati
CNR Researcher
INO-CNR BEC Center
Povo, I-38122
Trento

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13.01.20
Postdoctoral position at FU Berlin;
The Dahlem Center for Complex Quantum Systems at Freie Universitaet Berlin invites applications for a postdoctoral position in Theoretical Condensed Matter Physics. The position starts in September, 2020, and runs for 3 years. It is associated with the group of Piet Brouwer (Theoretical Mesoscopic Physics).

The Dahlem Center for Complex Quantum Systems focuses on theoretical quantum condensed matter physics in the broadest sense. Faculty at the Dahlem Center presently includes Ana-Nicoleta Bondar, Piet Brouwer, Jens Eisert, Christiane Koch, Anja Metelmann, Johannes Reuther, and Felix von Oppen.

The position will be paid according to E13 TV-L and includes a teaching component (no knowledge of German required).

Desirable knowledge and experience: Excellent research results, especially in the fields of topological phases of matter, such as topological insulators or semimetals; Participation in the Collaborative Research Center Transregio 183 "entangled states of matter".

Applications including a resume and a statement of research experience and interests should be sent to Ms. Annette Schumann-Welde, awelde@zedat.fu-berlin.de. Candidates should also arrange that three letters of recommendation be sent to the same address. We will start evaluating applications at the beginning of February 2020. For further information, see https://www.physik.fu-berlin.de/en/einrichtungen/dahlem_center_cqs/fellowship/index.html

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Poste chercheur IPhT CEA physique et information quantique;

Je vous serais très reconnaissant de diffuser cette information dans votre unité et parmi vos collègues.

Mes excuses si vous estimez que les activités de votre laboratoire ne sont pas en adéquation avec cette annonce, ou si vous l’avez déjà reçue par un autre canal.

Merci d’avance pour votre aide. Avec mes meilleurs vœux pour cette nouvelle année et mes très cordiales salutations.

François DAVID
Head of the Institut de Physique Théorique
Institut de Physique Théorique
CEA/DRF/IPhT, CEA-Saclay
CNRS/INP UMR 3681
F-91191 Gif-sur-Yvette Cedex