**UNIVERSITY OF CALIFORNIA SANTA BARBARA**

Microsoft Station Q
Elings Hall 2229
University of California
Santa Barbara, CA-93106

http://www.kitp.ucsb.edu/~rkk
rkk@kitp.ucsb.edu
Ph: (805) 893-5262
Fax: (425) 708-1426

**Ribhu Krishna Kaul**

# CURRICULUM VITAE

## employment

*Aug 2008 - present:* Postdoctoral Fellow
Microsoft Station Q , University of California Santa Barbara

*Aug 2006 - Aug 2008:* Postdoctoral Fellow
Condensed Matter Theory Group , Department of Physics, Harvard University

## education

*May 2002 - May 2006:* Doctor of Philosophy (with Nano Certificate)
Department of Physics, Duke University

*Aug 2000 - May 2002:* Master of Arts
Department of Physics, Cornell University

*Jun 1997 - Mar 2000:* Bachelor of Science (Honors)
St. Xavier's College, Mumbai University, India

## long research visits

*Sep 2004 - Feb 2005, Aug 2005 - Oct 2005, June 2006:*
Institut für Theorie der Kondensierten Materie, Universität Karlsruhe, Germany

## research specialization

*Condensed Matter Theory and Many-Body Quantum Mechanics*
Strongly-correlated quantum materials (frustrated magnets, cuprates, heavy-fermions)
Numerical quantum many-body physics (quantum Monte-Carlo, exact diagonalization)
Quantum field theory in condensed matter (quantum criticality)
Nano-physics (Kondo problem in quantum dots)

## teaching experience

*Primary Instructor:*
Duke University, Spring 2006. Computational physics (PHY 246).
*Teaching Assistant:*
Cornell University, Fall 2000. Physics I: Mechanics (PHYS 112).
Cornell University, Spring 2001. Physics II: Heat/Electromagnetism (PHYS 213).
Cornell University, Fall 2001. Physics III: Waves and Thermal Physics (PHYS 218).
Cornell University, Spring 2002. Thermodynamics and Statistical Physics (PHYS 341).

## honors, grants & certificates

Nano Certificate, Graduate Program, Duke University 2006
Fritz London Fellow, Physics Department, Duke University, 2005
Graduate Teaching Fellowship, Duke University, 2005
International Travel Grant, Duke University 2005
DAAD (Deutscher Akademischer Austauschdienst) Graduate Student Fellowship, 2004
1st Rank in Physics, Mumbai University, 2000

## short research visits, conferences & workshops

*Mar 2003*: APS March Meeting. Contributed talk. Austin.
*Jul 2003*: Boulder Summer School on Frontiers in Magnetism. Boulder.
*Mar 2004:* APS March Meeting. Contributed talk. Montreal, Canada.
*Oct 2004:* 335. WE-Heraus conference. "Quantum Phase Transitions" Bad Honnef, Germany.
*Oct 2005:* Visiting researcher. Laboratoire de Physique Théorique et Modèles Statistiques, Université Paris-Sud, France.
*Mar 2005:* APS March Meeting. Contributed talk. Los Angeles.
*Mar 2006:* APS March Meeting. Contributed talk. Baltimore.
*Jul 2006:* IISc Conference. Physics close to the Mott transition. Bangalore, India
*Apr 2007:* KITP Conference. Correlated States in Degenerate Atomic Gases. Santa Barbara.
*Jul 2007:* Aspen Center for Physics workshop. "Novel Aspects of Superconductivity."
*Nov 2007:* KITP Workshop. Moments and Multiplets in Mott Materials. Santa Barbara.
*Dec 2007:* TIFR workshop. Correlated Electrons and Frustrated Magnets. Goa, India.
*Mar 2008:* APS March Meeting. New Orleans.
*May 2008:* Visiting researcher. Microsoft Staton Q, University of California Santa Barbara.
*Jun 2008:* Topological Aspects of Solid State Physics, ISSP Workshop, University of Tokyo.
*Jun 2008:* Topological Aspects of Solid State Physics, Yukawa Institute, University of Kyoto.
*Jul 2008:* Aspen Center for Physics workshop. "Frontiers in Strongly Correlated Systems."

## seminar presentations

*Jun 2004:* Duke University.
*Oct 2004:* Universität Hamburg.
*Jan 2005:* Universität Regensburg.
*Jan 2006:* Boston University.
*Feb 2006:* Caltech.
*Mar 2006:* Argonne National Lab.
*Jul 2006:* Tata Institute for Fundamental Research.
*Jul 2007:* Aspen Center for Physics.
*Dec 2007:* ICTS, Goa, India.
*Feb 2008:* Univ. of Illinois at Urbana-Champaign.
*May 2008:* University of California Santa Cruz.
*Jun 2008:* Yukawa Institute, Kyoto.

*Oct 2004:* Technical University of Berlin.
*Dec 2004:* Universität Karlsruhe.
*Feb 2005:* Universität zu Köln.
*Feb 2006:* University of Tennessee.
*Feb 2006:* Harvard University.
*Jul 2006:* Indian Institute of Science.
*Jul 2007:* Oak Ridge National Lab.
*Nov 2007:* Microsoft Station Q.
*Feb 2008:* Boston University.
*Mar 2008:* MIT
*May 2008:* SUNY Stony Brook.
*Nov 2008:* UCLA

**miscellaneous**

Born in Bombay, India. June 13 1979.
English (native speaker), Hindi (native speaker) and German (fluent conversational knowledge).

Member of the American Physical Society since 2002.

**references**

Prof. Subir Sachdev (subir_sachdev@harvard.edu)
Department of Physics, Harvard University.
17 Oxford Street, Cambridge MA- 02138.
Phone: +1 (617) 495-3923
Web: `http://sachdev.physics.harvard.edu/`

Prof. Leon Balents (balents@kitp.ucsb.edu)
Kavli Institute for Theoretical Physics.
University of California, Santa Barbara, CA -93106.
Phone: +1 (805) 893-6381
Web: `http://www.physics.ucsb.edu/~balents`

Prof. Harold U. Baranger (baranger@phy.duke.edu)
Department of Physics, Duke University.
Box-90305, Durham, NC- 27708-0305.
Phone: +1 (919) 660-2598
Web: `http://www.phy.duke.edu/research/cm/bg/`

Prof. Matthias Vojta (vojta@thp.uni-koeln.de)
Universität zu Köln, Institut für Theoretische Physik.
Zülpicher Str. 77, 50937 Kln.
Phone: +49 (0) 221 470 7420
Web: `http://www.thp.uni-koeln.de/vojta/`

Prof. Shailesh Chandrasekharan (sch@phy.duke.edu)
Department of Physics, Duke University.
Box-90305, Durham, NC- 27708-0305.
Phone: +1 (919) 660-2598
Web: `http://www.phy.duke.edu/~sch`