

Dr. Kanika

DST, INSPIRE FACULTY,
Department of Physics,
Panjab University, Chandigarh, 160 014.

phone: +91-8146440587
email: kanikaif@pu.ac.in,
dr.kanikapasrija@gmail.com.

Research

Research Interests	Area: Condensed Matter Theory Sub-area: Strongly correlated electron systems and frustrated magnetism
PhD Thesis Title	Unconventional magnetic ordering in Heisenberg and Hubbard Models
PhD Thesis Advisor	Dr. Sanjeev Kumar , Head, Department of Physical Sciences, Indian Institute of Science Education and Research (IISER), Mohali. (http://www.iisermohali.ac.in/faculty/dps/dr-sanjeev-kumar)

Publications

1. Anzar Ali, Gyaneshwar Sharma, Abhinay Vardhan, **Kanika Pasrija**, Sarita Rajput, Tulika Maitra, Sanjeev Kumar, Yogesh Singh, "Magnetocaloric effects from an interplay of magnetic sublattices in Nd_2NiMnO_6 "; **Journal of Physics: Condensed Matter** (2019).
2. **Kanika Pasrija** and Sanjeev Kumar, "Noncollinear and noncoplanar magnetic order in the extended Hubbard model on anisotropic triangular lattice"; **Phys. Rev. B**, 93, 195110 (2016).
3. **Kanika Pasrija** and Sanjeev Kumar, "Effect of magnetic field on non-collinear magnetism in classical bilinear- biquadratic Heisenberg model"; AIP Conf. Proc. 1728, 020643 (2016).
4. **Kanika Pasrija**, Prabuddha B. Chakraborty and Sanjeev Kumar, "Effective Hamiltonian based Monte Carlo for the BCS to BEC crossover in the attractive Hubbard model"; **Phys. Rev. B**, 94, 165150 (2016).
5. **Kanika Pasrija** and Sanjeev Kumar, "High temperature noncollinear magnetism in bilinear-biquadratic Heisenberg model"; **Phys. Rev. B**, 88, 144418 (2013) .
6. Ritu Pasrija, **Kanika** and Sunita Srivastava , "Thermal Conductivity for Linear Anharmonic System" ; AIP Conf. Proc. 1349, 1051-1052 (2011).

Education

<i>Degree/Class</i>	<i>Institute/ University / Board (Year)</i>
Ph.D	Indian Institute of science Education and Research (IISER) Mohali, India (2016)
Master's of Science (Hons)	Panjab University Chandigarh, India (2010)
Bachelor's of Science (B.Sc)	Punjabi University, Patiala, India (2008)

Academic Achievements

- Awarded **Certificate of Reviewing** from the journal of "**Alloys and Compounds**", April 2018.
- Qualified **CSIR-UGC** (All India Rank -154) and Eligibility for Lectureship in Physics, December 2010.
- Secured 96.19 percentile in **JEST** (Joint Entrance Screening Test), 2010.
- Secured 97.20 percentile (All India Rank -179) in **GATE** (Graduation Aptitude Test of Engineering), 2011.
- Awarded **Role of Honour** for being the **Best Student** (2007-08) of Govt.Rajindra College, Bathinda, Punjab.
- Awarded **Certificate of Merit** for being placed in statewise top 1% in National Graduate Physics Examination (**NGPE**), 2007-08 examination.
- Awarded **College Colour in academics** for 5th position in B.Sc-III (2007-08), Punjabi University Patiala.
- Awarded **College Colour in academics** for 6th position in B.Sc-II (2006-07), Punjabi University Patiala.
- Student editor of science section for the magazine (2006-07) of Govt. Rajindra college, Bathinda, Punjab.

Work Experience

- Assistant Professor in Deptt. of Physics, Jain University, School of Sciences, Bengaluru, India from 1st February, 2019 till 11th March, 2019.
- Assistant Professor in Deptt. of Physics, Akal University, Talwandi Sabo, Bathinda, India from 18th July, 2016 till 15th March, 2018.
- Lecturer in Deptt. of Physics, Dasmesh Girls College Badal, Muktsar, India from 16th July, 2010 till 15th January, 2011.
- **Courses Taught for Master's of Science**
 - Condensed Matter Physics-I, Condensed Matter Physics-II, Statistical Mechanics
- **Courses Taught for Bachelor's of Science (Hons)**
 - Solid State Physics, Thermal Physics, Statistical and Thermodynamics
- *Member of the organising committee for a workshop on “**Olympiad experiments at School level**” in collaboration with Homi Bhabha Centre for Science Education (HBCSE), TIFR Mumbai held from April 22-24, 2017.*
- *Member of the organising committee for a workshop on “**Radioactivity and Nuclear Radiation Detection**” held on March 30, 2017.*

Guest Lecture

- Department of Physics, **DAV College Abohar**, Punjab on “Unconventional Magnetic Ordering” (2nd November, 2017).

Research Visit

- Leibniz Institute for Solid State and Material Research (**IFW Dresden, Germany**) from 6th September, 2014 till 13th September, 2014.

Participation in Conferences

S.No.	Month and Year	Name of The Event	Organizer
1	Jan 24, 2018	Oral presentation in National conference on “Recent Trends in Chemical, Environmental and Material Sciences” (RTCEMS)	DAV College Abohar, Punjab
2	Oct 30-31, 2015	Presented poster in International conference on “Condensed Matter and Applied Physics” (ICC-2015)	Govt. College of Engineering and Technology, Bikaner
3	Nov 4-6, 2014	Presented poster in International conference on “Condensed Matter Physics” (ICOMP-2014)	Himachal Pradesh University, Shimla
4	April 12-14, 2013	Participated in National seminar on “Frontiers of Condensed Matter Physics”	Delhi University
5	Jan 11-14, 2013	Presented poster in National conference on “Condensed Matter and Biological Systems”	Banaras Hindu University, Varanasi
6	Nov 5-7, 2011	Participated in Conference on “Astronomical Society of Indian Symposium I-Cosmology and Galaxy formation”	IISER, Mohali
7	March 19-20, 2010	Presented poster in “4 th Chandigarh Science Congress” (CHASCON-2010)	Panjab University Chandigarh
8	Nov 18-19, 2009	Participated in National conference on “Emerging perspectives and Sustainable Developments in Physics” (EPSDP09)	DAV College Abohar, Punjab
9	Feb 26-28, 2009	Participated in “3 rd Chandigarh Science Congress” (CHASCON-2009)	Panjab University Chandigarh

Participation in Schools/ Refresher Course/ Workshops

S.No.	Month/Year	Name of the Event	Organizer
1	Sep 15-19, 2014	Autumn School on “DMFT at 25: Infinite Dimensions”	Forchungszentrum Juelich, Germany
2	Aug 25-Sep 5, 2014	Summer School on “Frontiers of Condensed Matter Physics”	Donostia International Physics Center, Spain
3	July 8-23, 2014	Science Academie’s Refresher course in Experimental Physics	IAS, Bangalore, INSA New Delhi, NASI Allahabad, IISER Mohali
4	Feb 8-13, 2014	Workshop on “Current Trends in: Frustrated Magnetism-2015”	ICTP, Italy and JNU, Delhi
5	Jan 6-17, 2014	ICTS School on “Strongly correlated systems: from models to materials”	ICTS Bangalore
6	March 2-3, 2012	Workshop on “ Parallel Computing” using HPCC	Panjab University Chandigarh

Cultural and Sports Achievements

- Awarded **Gold medal** in Doll Making at “Inter-Zonal Youth Festival”, Punjabi University Patiala (2007-08), Punjab.
- Awarded **College Colour** in clay modelling for the second position at “Zonal Youth Festival” (2006-07), Punjabi University Patiala.
- Awarded **Gold medal** in women’s table tennis tournament at “ Inter-IISER Sports Meet”, 2014.
- Awarded **College Colours** in cricket for the first position in “Inter-College Women’s Cricket” (2005-06), Punjabi University Patiala and participating thrice in “All India Inter-University Women’s cricket” tournament (2005-08).

Computer Skills

- OS: Linux, Windows.
- Languages: Fortran, C, Mathematica.
- Softwares: Latex, Beamer, MS Office.