

Name Argha Banerjee

Present position INSPIRE Faculty Fellow,
Department of Earth Sciences,
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Date of birth 2nd February, 1981

Research Interests Himalayan glaciers, Debris covered glaciers

Education Ph. D. (2004 - 2010)
Department of Theoretical Physics,
Tata Institute of Fundamental Research, Mumbai, India

M.Sc. in Physics (2002- 2004)
Indian Institute of Technology Kanpur, India

B.Sc. in Physics (1999 - 2002)
Jadavpur University, Kolkata, India

Professional Experience Post Doctoral Fellow (2011 - 2012),
The Institute of Mathematical Sciences, Chennai, India

INSPIRE Faculty Fellow (2013 – Present),
Department of Earth Sciences,
Indian Institute of Science Education and Research Kolkata
Mohanpur, India

Awards and Fellowships National Talent Search Scholarship, NCERT (1997)
Joint CSIR-UGC Junior Research Fellowship (2003)
INSPIRE Faculty Fellowship Award, DST (2012)

Grants

1. Principal Investigator, *Numerical modeling and field studies of debris covered glaciers in Indian Himalaya*, funded by Dept of Science and Technology, Govt of India under INSPIRE Faculty Award Scheme (2013-2018).
2. Principal Investigator from IISER Kolkata, *Glaciers in Upper Alaknanda-Saraswati valley and Climate change*, a multi-institutional project funded by The Institute of Mathematical Sciences, Chennai (2012-2017).
3. Principal Investigator, *Measurement and modeling of supraglacial debris layer properties of Hamtah glacier*, funded by Dept of Science and Technology, Govt of India (2014-2016).
4. Principal Investigator, *Glacier monitoring and paleoclimatic reconstruction in Sikkim Himalaya*, funded by IISER Kolkata under FIRE scheme (2014-2015).

Publications

1. Argha Banerjee and R. Shankar: Estimating the avalanche contribution to the mass balance of debris covered glaciers, *The Cryosphere Discuss.*, 8, 641-657, doi:10.5194/tcd-8-641-

- 2014, (2014). (revised version to be submitted to *Annals of Glaciology*)
2. Argha Banerjee, and R. Shankar: On the Response of Himalayan glaciers to climate change, *Journal of Glaciology* 59 (215), 480 (2013).
 3. Sambuddha Sanyal, Argha Banerjee, Kedar Damle, and Anders W. Sandvik: Antiferromagnetic order in systems with doublet $S_{\text{tot}}=1/2$ ground states, *Phys. Rev. B* 86, 064418 (2012) .
 4. Sambuddha Sanyal, Argha Banerjee, and Kedar Damle: Vacancy-induced spin texture in a one-dimensional $S=1/2$ Heisenberg antiferromagnet, *Phys. Rev. B* 84, 235129 (2011).
 5. Argha Banerjee, Kedar Damle, and Fabien Alet: Impurity spin texture at the critical point between Néel-ordered and valence-bond-solid states in two-dimensional SU(3) quantum antiferromagnets, *Phys. Rev. B* 83, 235111 (2011).
 6. Argha Banerjee, Kedar Damle, and Arun Paramekanti: Néel to staggered dimer order transition in a generalized honeycomb lattice Heisenberg model, *Phys. Rev. B* 83, 134419 (2011).
 7. Argha Banerjee and Kedar Damle: Generalization of the singlet sector valence-bond loop algorithm to antiferromagnetic ground states with total spin $S_{\text{tot}} = 1/2$, *J. Stat. Mech.* P08017 (2010).
 8. Argha Banerjee, Kedar Damle, and Fabien Alet: Impurity spin texture at a deconfined quantum critical point, *Phys. Rev. B* 82, 155139 (2010).
 9. Argha Banerjee, Sergei V. Isakov, Kedar Damle, and Yong Baek Kim: Unusual liquid state of hard-core Bosons on pyrochlore lattice, *Phys. Rev. Lett.* 100, 047208 (2008).
 10. Argha Banerjee et al.: Fiber optic sensing of liquid refractive index , *Sensors and Actuators, B: Chemical*, 123 (1), pp. 594-605 (2007).

Conferences/Workshops

1. Contributed talk in Workshop on ‘*Impacts of global change on the dynamics of snow, glaciers and runoff over the Himalayan Mountains with particular reference to Uttarakhand*’, GBPIHED, Almora, 2012.
2. Contributed talk in International Symposium on ‘*Cryosphere and Climate Change (C3)*’, SASE, Manali, 2012.
3. Attended Karthaus Summer School on *Ice Sheets and Glaciers in the Climate System*, 2012.
4. Attended Training on glacier studies, climate change and remote sensing, DCCC, IISC, Bangalore, 2013
5. Taught in Indo-Swiss training programme on Capacity Building in Himalayan Glaciology, JNU, New Delhi, 2013.
6. Contributed talk in *National Conference on Himalayan Glaciology*, Shimla, 2014.