

## SOURAV DUTTA

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## CURRENT RESEARCH INTEREST

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- **Experimental atomic, molecular and optical Physics**  
Doppler-free spectroscopy of LiRb; Quantum Computing using polar molecules (LiRb)

## EDUCATION

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- **Purdue University, West Lafayette, IN**  
Ph.D. student in Physics, August 2007 – present (Advisor: Prof. Yong P. Chen)  
**GPA: 3.97/4.0**
- **S. N. Bose National Centre for Basic Sciences, Kolkata, India**  
Master of Science in Physics, July 2007  
GPA: 8.24/10
- **Presidency College, Kolkata, India**  
Bachelor of Science in Physics, June 2005  
First Class with 70% marks

## PREVIOUS PROJECTS

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- **“A Cartoon in One Dimension of the Hydrogen Molecular Ion”** under the joint guidance of Professor Binayak Dutta-Roy of S. N. Bose National Centre and Professor J. K. Bhattacharjee of Indian Association for the Cultivation of Science, May-July 2007
- **“Nonlinear hydrodynamical approach to granular materials”** under the guidance of Professor J. K. Bhattacharjee of Indian Association for the Cultivation of Science, August 2006-May 2007
- **“Preparation and characterization of NiFe<sub>2</sub>O<sub>4</sub> nanoparticles using XRD and VSM”** under the guidance of Dr. Kalyan Mandal of S. N. Bose National Centre, August-November 2006
- **“Introduction to the Modern Theory of Critical Phenomena”** under the guidance of Professor J. K. Bhattacharjee of Indian Association for the Cultivation of Science, June-July 2006
- **“Design of a low-cost apparatus to determine the refractive indices of liquids in very small quantities”** under the guidance of Professor K Srinivasan of S. N. Bose Centre, January-April 2006
- **“Stars and Statistical Physics”** under the guidance of Dr. Pinaki Majumdar of Harish Chandra Research Institute, Allahabad, October-November 2003

## IMPORTANT SCHOOLS/ WORKSHOPS ATTENDED

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- Midwest Cold Atom Workshop, Argonne National Laboratory, November 2008
- NCN@Purdue Summer School on “Electronics from the Bottom Up”, Purdue University, July 2008
- Michigan Quantum Summer School at University of Michigan, June 2008
- Third SERC School on Non Linear Dynamics, IACS Kolkata, December 2006
- C. K. Majumdar Memorial National Workshop on Experimental Physics, 2005

## PUBLICATIONS

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- **“A Cartoon in One Dimension of the Hydrogen Molecular Ion”** , Sourav Dutta, Shreemoyee Ganguly and Binayak Dutta-Roy, European Journal of Physics, Vol. 29, No. 2, March 2008

## AWARDS AND FELLOWSHIPS

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- Joint summer research fellow of the Indian Academy of Sciences and the Indian National Science Academy, May-July 2007
- Summer fellow of the Indian Academy of Sciences, May-July 2006
- Placed among National Top 1% in National Graduate Physics Examination (NGPE), 2005
- Presidency College Hostel Stipend (2003 and 2005)
- Coal India Limited Scholarships (from 1995 to 2005)

## MISCELLANEOUS

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- **Teaching experience:**  
Teaching Assistant: PHYS 515 (Thermal and Statistical Physics), Purdue University, Fall 2008  
Teaching Assistant: PHYS 290D (Heat and Thermal Physics), Purdue University, Spring 2008  
Teaching Assistant: PHYS 172 (Modern Mechanics), Purdue University, Fall 2007
- **Computation:** Fortran, MATLAB, PERL
- **Painting:** Five year diploma in painting from Bangiya Sangeet Parishad, Prizes at State and National level
- **Sports:** 100m, 200m & 400m races (College Champion of Presidency College), Cricket, Soccer