# Jogia Bandyopadhyay

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# EDUCATION

**Ph.D.** (August 2008)

### Georgia Institute of Technology

September 2003 – August 2008

School of Physics

Advisor: Professor Eric A. Carlen, Department of Mathematics, Rutgers University (on leave from Georgia Institute of Technology)

Selected courses taken: Mathematical Methods in Physics, Classical Mechanics II, Statistical Mechanics II, Quantum Field Theory, Renormalization Theory (listed as Special Topics Course in the official transcript), Introduction to Hilbert Spaces.

CGPA : 3.9/4.

#### M.Sc. in Physics

# Indian Institute of Technology, Kharagpur

July 2001 – May 2003

Selected courses taken: Classical Mechanics, Electromagnetic Theory I & II, Mathematical Physics, Statistical Mechanics, Quantum Mechanics II, Elementary Particles and Strong Interactions.

CGPA : 8.27/10.

#### **B.Sc.** in Physics

University of Calcutta, Calcutta, India

July 1998 – June 2001

#### **PUBLICATIONS**

Bandyopadhyay, J. , "Optimal Concentration for SU(1,1) Coherent State Transforms and An Analogue of the Lieb-Wehrl Conjecture for SU(1,1)", Communications in Mathematical Physics 285, 1065-1086, 2009.

#### Awards and Honors

- Student Travel Award (2006) to attend a workshop on Geometric Analysis and Non-linear Partial Differential Equations at MSRI, Berkeley.
- Best Research Project Award (2003) for Master's Thesis, Indian Institute of Technology, Kharagpur.

## RESEARCH EXPERIENCE

# Georgia Institute of Technology, Atlanta, GA

Graduate Student: Research on sharp entropy—energy inequalities on symplectic Riemannian manifolds, which are phase spaces for classical systems.

#### Tata Institute of Fundamental Research, Mumbai, India

Visiting Student Summer Research Program: Research project on Bose-Einstein Condensation in Trapped Gases.

# Indian Institute of Technology, Kharagpur, India

Master's Thesis: Angular Momentum Coherent States and the Group SL(2, C).

# TEACHING EXPERIENCE

- PHYS4142 Teaching Assistant for intermediate level Statistical Mechanics course open to both graduate and advanced undergraduate students. Gave three lectures, held office hours, graded home works and exams.
- PHYS6107 Teaching Assistant for graduate level Statistical Mechanics course. Held office hours, graded home works and exams.
- PHYS6101 Teaching Assistant for graduate level Classical Mechanics course. Held office hours, graded home works and exams.

#### Presentations

Angular Momentum Coherent States and the Group  $SL(2, \mathbb{C})$ , Indian Institute of Technology, Kharagpur, May, 2003.

Bose-Einstein Condensation in Trapped Gases, Tata Institute of Fundamental Research, June, 2002.