

Education

Ph.D. 2008, Harvard University, Dept. of Physics

Thesis: Measuring Black Hole Spin

Advisors: Ramesh Narayan (Dept. of Astronomy), Jeffrey McClintock (Center for Astrophysics)

B.A. 2002, California Institute of Technology

Major: Physics, *GPA:* 4.0/4.0

S.S.C. and H.S.C.

1985-1997 Holy Cross High School and College, Dhaka, Bangladesh

Research

- **Theoretical Neuroscience**, Harvard Center for Brain Science Feb 2009- Present
Swartz post-doc fellow
- **Theoretical Astrophysics** Feb 2005-Nov 2008
Dept. of Physics, Harvard University and Harvard-Smithsonian
Center for Astrophysics
PhD work on measuring the spin of stellar-mass black holes in X-ray
binary systems.
Advisors: Prof. Ramesh Narayan (dept. of astronomy) & Dr. Jeff
McClintock (cfa).
- **Microarray Data Analysis**, Caltech Summer 2001
Advisor: Stephen Quake
- **Observational Astronomy**, Caltech Summer 2000
DPOSS: Search for Type II QSOs using data from the Palomar
Observatory Sky Survey.
Advisor: George Djorgoski

Work Experience

- Graduate Teaching Assistant for undergraduate and graduate level
physics classes, Harvard Physics. Fall 2003-Spring 2008
- Undergraduate Grader, freshman physics, Caltech Spring 2001
- Undergraduate teaching assistant for sophomore physics lab, Caltech Winter 2001

Awards and Honors (Academic)

- ITC Prize for best PhD thesis in theoretical astrophysics, Institute for Theory and Computation, Harvard University June 2009
- An Wang Fellowship, Harvard University, Dept. of Physics Spring 2003
- Van Vleck Prize, Harvard University, Dept. of Physics Sept 2002
Award given to top applicants in entering graduate class.
- Caltech Carnation Merit Award 2000-2002
- Nominated for the Jack E. Froehlich Award, Caltech March 2001
(top 5% of the junior class is nominated)
- Selected to be an associate member of sigma xi, national research honor society in junior year of college April 2001
- Elected to Tau Beta Pi, Caltech chapter April 2001
- Merit scholarship of the Government of Bangladesh 1993-1997

Awards (non-academic)

- Captain, runner-up team, National Debate Championship, Bangladesh Television. 1994
Awarded individual best speaker prize among all competitors that year.
- Among top 5 debaters of all high schools and universities, National Debate Championship, Bangladesh Television 1997
- Represented Bangladesh at the London International Youth Science Forum (LIYSF) 1997

Patent, Research Grant, Press

- **Co-I of NASA grant NNH07ZDA001N-AFTP.** 2008
Measuring Black Hole Spin: Physics of the Inner Region of an Accretion Disk. PI: Ramesh Narayan.
- Patent of undergraduate research work on microarray data Sept 20, 2005
Quake; Stephen R., van Dam; R. Michael, Brody; James P., Shafee; Rebecca **US Patent No. 6,947,846**, Non-metric tool for predicting gene relationships from expression data.
- http://www.nasa.gov/vision/universe/starsgalaxies/spinning_blackhole.html Nov 2006
- <http://www.cfa.harvard.edu/news/2006/pr200630.html>