

DIPANJAN ROY

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OBJECTIVE: To work in an environment of research and teaching.

CURRENT POSITION: Research assistantship and teaching associate at UTA.

RESEARCH INTERESTS:

- **NONLINEAR DYNAMICAL SYSTEMS**
- **ACOUSTIC WAVES AND NONLINEAR WAVES**
- **PLASMA AND SOLAR PHYSICS**
- **ROUTES TO CHAOS IN HIGH DIMENSION**
- **NONLINEAR TIME SERIES ANALYSIS AND SIGNAL PROCESSING**

Education

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- **M.sc in Physics**
Course duration: 2001-03
Degree offered: University of Pune
Relative Rank: 15 in the class of 74
 - **B.sc in physics**
Course duration: 1996-99
Degree offered: Fergusson college(University of Pune)
Relative Rank: 1st in the class of 100

Test scores

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- **Toefl score: 253/300 test taken on 11/11/03**
 - **GRE score: 1250/1600 test taken on 13/11/03**

Knowledge of Research tools

- **Monte Carlo simulation technique**
- **Iterative methods to integrate dynamical systems**
- **Nonlinear time series data analysis**
- **Statistical computing and graphics tool interactive with Fortran, C, C++**

Software skills

- **PROGRAMING LANGUAGES: Fortran, C ,C++**
- **Operating systems such as UNIX, RED HAT LINUX 8.0, WINDOWS XP.**
- **WEB TECHNOLOGY: HTML**
- **SOFTWARE PACKAGES: MATLAB, MATHEMATICA, GNUPLOT, LATEX, MS OFFICE.**

Projects and Research

- **Foundations of quantum chemistry**
Adviser: Dr.Saurav pal (National chemical laboratory)
- **White dwarf stars and Chandra limit**
Adviser: Dr.Arun thampan(IUCAA,Pune)
- **Cavity QED and new quantum effects at low dimension**
Adviser: Dr.S.V.Lawande
- **chaotic behavior of a Blackhole**
System GRS 1915+105

Adviser: Dr.Ranjeev Misra and Dr.K.P.Harikrishnan
- **study of dissipative systems and method of finding lagrangian . application to acoustic waves in atmosphere.**

Adviser: Dr. z.musielak

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Honours and achievements

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- **National science talent search scholarship at standard Xth**
- **Selected for state level maths Olympiad**
- **IPA(Indian physics association) best undergraduate award**
- **IPA “inter college quiz “ award for the year 1999**
- **All India Ph.d exam “jest” percentile of 88.56 in the year 2002 selected for Ph.d program at JNCASR**

Academic interest and teaching

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- **undergraduate physics and labs in mechanics at UTA from august 2004- august 2005 as a teaching associate.**
- **The job involves assigning problems on mechanics, teaching interactive experiments and grading papers.**
- **Current paper in which I’m working is going to appear in mathematical physics / chaos ,solitons and fractals.**

Other interests:

- **Small world networks and stochastic processes.**
- **Internet and adaptive networks**
- **Processes with long range correlations in application To biology and economics**

Hobbies

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- **Reading**
- **Music(jazz, Indian classical, fusion)**
- **Indoor games like chess, cards and outdoor activity like rock climbing.**

Personal qualities

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- **Honesty ,determination**
- **Leadership skills and team work**

