

Prakash Atreya, PhD
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Educational Qualifications

- Sep'05 – Jun'09 PhD in Astrophysics
Armagh Observatory / Queens University Belfast, UK
- Thesis: " Development of a Software Package for the Reduction and Analysis of Video Records of Meteors "
 - The software, written in IDL, performs Astrometry, Photometry, Image processing, Co-ordinate transformations, Orbital computations
- Sep'02 – Jun'05 B.Sc. in Geosciences and Astrophysics
Jacobs University Bremen, Bremen, Germany
- Thesis: "Accelerations of Coronal Mass Ejections (CMEs) "

Work Experience

- Apr'15 – current Scientific Developer
Ludwig-Maximilians University, Munich, Germany
- Develop and improve algorithms for photometric reductions of Dark Energy Survey
 - Contribute to the data reduction pipeline for ESA Euclid mission
- Nov'11 – Mar'15 Programmer Analyst Specialist
Arecibo Observatory, Arecibo, Puerto Rico
- Maintain/Develop main User-Interface to control the Telescope
 - Integrate Backends to the User-Interface
 - Currently Using : Tcl/Tk, C, Python, shell scripts, HTML, Svn, Mysql
- Jan'12 – Feb'12 Technical Consultant
Imperial College, London, UK
- Technical consulting to digitize "fireball network station" in Australia
 - Provide specific software solutions to analyze fireball data
- Sep'09 – Feb'11 Engineer (System and Data Analyst)
IMCCE / Observatory of Paris, Paris, France
- Installation of Remote and Automated meteor station
 - Designed and developed new electronic shutter system for meteor cameras
 - Developed software tools using C++
 - Developed data transfer and management tool using Unix Scripts
- Jun'04 – Aug'04 Research Assistant for Astrophysics
Max Planck Institute of Extra-Terrestrial Physics, Germany
- Analyzed and improved the background data reduction method of gamma ray instrument 'COMPTEL' and implemented new method in software using C++
- Jul'04 – Aug'04 Research/Lab Assistant for Physics
Technical University Munich, Garching, Germany
- Worked in a AMS particle accelerator lab to set-up an experiment on particle transport in interstellar medium

- 04 – 27 Feb'04 Research Assistant in Department of Physical Oceanography
NIOZ (Royal Netherlands Inst. for Sea Research), Netherlands
- Analysis of raw data on ocean currents from Lisboa canyon.
- Sep'03 – Jan'04 Research Assistant for Physics lab
Physics Department, Jacobs University Bremen, Germany.
- Developed MATLAB programs to carry out various scientific computations related to lithography experiments
- Sep'02 – Dec'03 Teaching Assistant for Mathematics
Jacobs University Bremen, Germany.
- Graded student assignments, teach during absence of lecturer and tutor students during examination periods at the Maths Support Centre.
- 01 –29 May'03 Technical Assistant for Physics lab
Jacobs University Bremen, Germany.
- Technical and mechanical set-up a new optical research laboratory.

Additional Qualifications/Trainings

- 25 – 28 Jan'10 Virtual Observatory Workshop (Aladin, Topcat, VODesktop)
Strasbourg Observatory , France
- 16 – 19 Feb'09 High Performance Computing and MPI
Irish Centre for High-End Computing (ICHEC) , Ireland
- 04 – 11 Jun'04 Training on using Optical telescope (1.3m) and Data Reduction (IRAF)
Skinakas Observatory/University of Crete,Greece

Management/Supervising Experience

- 15Jun – 30Jul'10 Supervisor for Stefan Mellem (3nd year student)
Arecibo Observatory, USA
- Develop user-interface to control RDBE and MK5c backends for Very Large Baseline Interferometry (VLBI) astronomy observations.
- May – Jun'10 Project leader (due to sick leave of PI)
IMCCE, Paris, France
- Coordinate 5 people and camera company to buy equipments, develop software and hardware, prepare test observing campaign etc.
- 15Jun – 30Jul'10 Supervisor for Min-Kyung Kwon (2nd year student)
IMCCE, Paris, France
- Develop Double station software for meteor observation in Java
- 01Apr – 30Sep'10 Supervisor for Ivan Sauli (Final year Engineer student)
IMCCE, Paris, France
- Develop meteor/event detection software in C++
- Sep'02 – Dec'03 Teaching Assistant for Mathematics
Jacobs University Bremen, Germany.
- Teach undergraduate students during the absence of lecturers