

Curriculum Vitae

DEOVRAT PRASAD

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EDUCATION

Indian Institute of Science, Bangalore, India
PhD, Astronomy and Astrophysics, April 2018
Dissertation: “*AGN Feedback in Galaxy Clusters - Controlling cooling flows in galaxy clusters using momentum driven AGN jets*”
Advisor: Prateek Sharma
Astronomy and Astrophysics
Department of Physics
Indian Institute of Science
Bangalore, India

UM-DAE Center For Excellence in Basic Sciences,
University of Mumbai, Santa-Cruz, Mumbai, India
Integrated M.Sc. (B.Sc.+M.Sc.) , Physics, 2012
Master's Thesis: “*Study of Resonance Particles in Quantum Mechanics by Numerical Methods*”

RESEARCH INTEREST

1. Feedback Processes in Galaxies, Groups and Clusters
2. Accretion onto Super Massive Black Holes
3. Galaxy Formation and Evolution
4. Large Scale Structures

PUBLICATIONS

1. “*Cool core cycles: Cold gas and AGN jet feedback in cluster cores*”
Deovrat Prasad, Prateek Sharma, and Arif Babul
2015, ApJ, 811, 108
2. “*AGN jets driven stochastic cold accretion in cluster cores*”
Deovrat Prasad, Prateek Sharma, and Arif Babul
2017, MNRAS, 471, 1531
3. “*Scalable explicit implementation of anisotropic diffusion with Runge-Kutta-Legendre super-time-stepping*”
Bhargava Vaidya, Deovrat Prasad, Andrea Mignone, Prateek Sharma, Luca Rickler
2017, MNRAS , 472, 3147

4. “*Cool-Core Clusters : Role of BCG, Star Formation & AGN-Driven Turbulence*”
Deovrat Prasad, Prateek Sharma, and Arif Babul 2018, arxiv.org/abs/1801.04282v2,
(Submitted to ApJ, Under review)

FELLOWSHIPS

- “*INSPIRE*” fellowship for 2007-12 by Dept. Of Science and Technology, Govt. Of India.
- “*CSIR-UGC NET Fellowship*” for 2012-2017 after achieving 24th All India Rank in National Eligibility Test (June-2012) jointly conducted by CSIR and UGC, India.

PRESENTATIONS

- “*Cool Core Cycles: Cold Gas and AGN Feedback in Cluster Cores*”, Black Hole Accretion and AGN Feedback conference, Shanghai Astronomical Observatory, Shanghai, China, June 2015. (POSTER)
- “*Cold Gas and AGN Feedback in Cluster Cores*”, Extra-galactic Relativistic Jets: Cause and Effects conference, ICTS Bangalore, India, October 2015. (TALK)
- “*AGN feedback in Galaxy Clusters*”, Astronomical Society of India Meeting, Srinagar, India, May 2016. (TALK)
- “*AGN Feedback in Galaxy Groups*”, The Physics of Groups and Galaxy Properties therein meeting, Institut d'Astrophysique de Paris (IAP) Paris, France, December 2016. (TALK)
- “*Role of BCG and AGN-driven Turbulence in Galaxy Cluster Evolution*”, SnowCluster - The Physics of Galaxy Clusters, Snowbird, Utah, US, March 2018 (TALK)

WORK IN PROGRESS

- “*Can AGN jets change baryon fraction in galaxy groups?*”
(Analysis in Progress)

TEACHING EXPERIENCE

- Teaching Assistant for 'Fluids and Plasma' course at Department of Physics, IISc, taught by Prof. Prateek Sharma (August – November, 2014)
- Teaching Assistant for 'Electricity, Magnetism and Optics' course for undergraduates at IISc, taught by Prof. Tarun Deep Saini (January-April, 2015)

SOFTWARE SKILLS

- Programming – Fortran77/95, C, C++, Python, working knowledge of MPI
- Plotting Softwares – GNU, VisIt, Matlab
- Grid Codes – ZEUS-MP, PLUTO

REFERENCES

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