

Anshu Gupta

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Nationality: Indian

Education

- 2013 – 2017 Doctorate of Philosophy (Astronomy)
 Australian National University, Canberra
 Thesis: Understanding the effect of environment on chemical evolution of star-forming galaxies
 Supervisor: Prof. Lisa Kewley
- 2008 – 2013 Dual Bachelor and Master of Science
 Indian Institute of Science Education and Research Mohali, India
 Majors: Physics
 GPA: 9.2/10
 Thesis: ^3He [II] - An alternative probe for Reionization
 Supervisor: Prof. Jasjeet Bagla
- 2004 – 2008 AISSCE(12th)-CBSE
 D.A.V. Public School, Yamuna Nagar, Haryana, India
 Marks: 91.6%

Publications

1. **Gupta, A.**, Yuan, T., Martizzi, D., Tran, K.-V. H., and Kewley, L. J. 2017, *The Astrophysical Journal*, 842, 75, *Survival of Massive Star-forming Galaxies in Cluster Cores Drives Gas-phase Metallicity Gradients: The Effects of Ram Pressure Stripping*
2. **Gupta, A.**, Yuan, T., Tran, K.-V. H., Martizzi, D., and Kewley, L. J. 2016, *The Astrophysical Journal*, 831, 104, *Radial distribution of ISM gas-Phase metallicity In CLASH clusters at $z \sim 0.35$: A new outlook on environmental impact on galaxy evolution.*
3. Kaasinen, M., Bian, F., Groves, B., Kewley, L. J., and **Gupta, A.** 2017, *Monthly Notices of the Royal Astronomical Society*, 465, 3220, *The COSMOS-[OII] survey: evolution of electron density with star formation rate*
4. Kanekar, N., **Gupta, A.**, Carilli, C. L., Stocke, J. T., and Willett, K. W. 2014, *The Astrophysical Journal*, 782, 56, *A Blind Green Bank Telescope millimeter-wave survey for redshifted molecular absorption*

Successful Telescope Proposals (as PI and co-PI) and observational experience

- (co-PI) OSIRIS/Keck observatory (Semester 2017B), A golden test case for the next generation of LENSTOOL models, Proposal ID: 2017B_Z272, PI: Soniya Sharma
- (PI) DEIMOS/Keck observatory (Semester 2015A), Spectroscopic survey of strong lensing clusters, Proposal ID: 2015A_Z265D
- Observation with OSIRIS/Keck of a gravitationally lensed galaxy at $z = 2.226$ in 2015B.
- Observations with WiFeS at 2.3 meter telescope in Siding spring observatory of local galaxies.

Scholarships and Prizes

- 2013 – 2016 University Research fellowship - The Australian National University
Scholarship awarded for 3 years for PhD in Astronomy and Astrophysics based on academic merit.
- 2016 Research School of Astronomy & Astrophysics Travel grant
To visit supervisor Kim-Vy Tran in Texas A&M, College Station, Texas, USA.
Money: \$3800
- 2012 Visiting Student Research Program (VSRP) Fellowship, NCRA, Pune, India
Awarded to undertake a research project in Astronomy.
Supervisor: Prof. Nissim Kanekar
- 2011 VSRP Fellowship and Indian Academy of Science (IAS) Fellowship
Awarded to undertake a research project in Laser Physics.
- 2008 – 2009 C.N.R. Rao Foundation Award (Received Twice)
Awarded for outstanding academic achievement in the first and second semester of the Dual BS-MS.
- 2008 – 2013 KVPY Fellowship by Department of Science and Technology, Government of India
A prestigious fellowship recognising the school students with aptitude for science and research.
Awarded to only 100 students per year. Awarded for the duration of Dual BS-MS.

Conferences and Institute talks

- July 2017 – Conference talk at GCF 2017 : Early stages of galaxy cluster formation, ESO on *Does environment effect ISM metallicity of star-forming galaxies.*
- July 2017 – Conference poster at GECCO-LAM 2017 : Galaxy Clusters Across Cosmic Time, Aix-en-Provence, France on *Survival of the fittest: Influence of ram pressure stripping on star-forming galaxies.*
- May 2017 – Conference talk at ITSO symposium 2017, Canberra, Australia on *Origin of a cluster-scale abundance gradient in the gas-phase ISM metallicity*
- January 2017 – Talk at Carnegie Mellon University (CMU), Pittsburg, USA on *Origin of a cluster-scale abundance gradient in the gas-phase ISM metallicity*
- January 2017 – Dissertation talk at annual science meeting of AAS 2017, Grapevine, USA on *Origin of a cluster-scale abundance gradient in the gas-phase ISM metallicity*
- September 2016 – Conference talk at CAASTRO science meeting 2017: The Changing face of galaxies, Hobart, Australia on *Existence of cluster-scale abundance gradient in the gas-phase ISM metallicity*
- April 2016 – Talk at University of Austin, Texas, USA on *Existence of cluster-scale abundance gradient in the gas-phase ISM metallicity*
- April 2016 – Talk at Texas A&M University, College Station, Texas, USA on *Existence of cluster-scale abundance gradient in the gas-phase ISM metallicity*
- March 2016 – Seminar at Research School of Astronomy & Astrophysics, The Australian National University, Canberra, Australia on *Existence of cluster-scale abundance gradient in the gas-phase ISM metallicity*
- December 2015 – Colloquium at National Centre of Radio Astrophysics (NCRA), Pune, India on the *Radial dependence of global metallicity of star-forming galaxies in giant galaxy clusters*
- July 2015 – Conference talk at annual science meeting of Australian society of Astronomy (ASA) 2015, Perth, Australia on the *Metallicity gradient: Probing galaxy evolution*
- July 2014 – Attended Harley wood winter school 2014, Sydney, Australia

December 2012 – Winter School at Tata Institute of Fundamental Research (TIFR), Mumbai, India on Astronomical and Cosmological Surveys

December 2011 – School on National Center for Radio Astronomy Pune (NCRA), Inter-University Centre for Astronomy and Astrophysics, Pune (IUCAA), Pune, India on Radio astronomy

Software Experience

UNIX/LINUX; Macintosh operating system; IDL (primary programming language), Python, C, C++, HTML, Fortran; LaTeX word processing; basic IRAF

Astronomy Softwares: GALFIT, LePhare, SEXtractor, Lenstool

Language Skills

Hindi (*native speaker*); English (*2nd language*).

Service Experience

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| 2016 – present | Organizer, Gears3D group meeting |
| 2017 – present | Organizer, Stromlo Weekly Women's Writing Morning |
| 2015 – 2016 | Member, Telescope allocation committee for WiFeS at 2.3 meter telescope |
| 2009 – 2010 | Coordinator & Co-founder, IISER Mohali Astronomy & Astrophysics club |
| 2009 – 2013 | Member & Co-founder, YATN (Youths Attempt To Nurture) - IISER Mohali: To teach under-privileged kids. |

References

Prof. Lisa Kewley

ARC Laureate Fellow || Research School of Astronomy and Astrophysics || Australian National University
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Email: lisa.kewley@anu.edu.au

Prof. Kim-Vy Tran

|| Department of Physics & Astronomy || Texas A&M, College station
Work Phone: +1 979 458 5853
Email: kimvy.tran@gmail.com

Dr. Davide Martizzi

Swiss National Science Fellow || Department of Astronomy || University of California, Berkeley
Email: dav.martizzi@berkeley.edu

Dr. Tiantian Yuan

ASTRO 3D Fellow || Centre of Astrophysics and Supercomputing || Swinburne university of technology, Melbourne
Email: tiantian.yuan@anu.edu.au