

Curriculum vitae

Ankit Singh

CONTACT INFORMATION	1523, Building 1 Korea Institute for Advanced Study (KIAS) 85 Hoegi-ro, Dongdaemun-gu, Seoul Republic of Korea	+82-02-958-2564 singhank.astro@gmail.com ankitsingh@kias.re.kr
RESEARCH INTERESTS	Galaxy evolution, large-scale environment, hydrodynamical simulations, Active Galactic Nuclei (AGN).	
CURRENT AFFILIATION	Research Fellow at Korea Institute for Advanced Study (KIAS), Seoul, Republic of Korea (2020-)	
EDUCATION	Indian Institute of Science Education and Research (IISER Mohali), India Ph.D. in Physics 2014-2020 Supervisor: Prof. Jasjeet Singh Bagla, Thesis title: Effects of large-scale environment on galaxy evolution. Department of Physics and Astrophysics, University of Delhi M.Sc., Physics 2012-2014 University of Delhi, India B.Sc. (H) Physics 2009-2012	
TALK/POSTER IN CONFERENCES	<ul style="list-style-type: none">• Talk on <i>Study of the effect of environment on AGN activity in HR5 simulation</i> at the University of Hull, UK, 15 May 2023.• Online astrophysics outreach talk on <i>Studying Galaxy Evolution using Hydro-Dynamical Simulations</i> at Nehru Planetarium, New Delhi, 16 February 2023.• Talk on <i>Impact Of AGN emission on estimated star formation rate using IR luminosity of galaxies in HR5</i> in Mapping the invisible Universe, at Lorentz Center, Leiden, The Netherlands, 29 August- 2 September 2022.• Talk on <i>Effects of local environment on AGN activity in HR5</i> in The 10th KIAS Workshop on Cosmology and Structure Formation at KIAS, October 24-28 2022.• Talk on <i>Study of filament galaxies in EAGLE simulation, LSST@ASIA: Exploring the Wide, Fast, Deep Universe</i> conference at UNSW, Sydney, Australia, 20-23 May 2019.• Talk on <i>Study of filament galaxies in EAGLE simulation</i>, XXXVII Meeting of Astronomical Society of India, Christ (Deemed to be University), Bengaluru, India, 18-22 February 2019.• Poster on <i>Caught in the web: a tale of filament galaxies</i> in IAU Symposium 341: PanModel2018: Challenges in panchromatic modelling of galaxies with next-generation facilities, Osaka University, Osaka, Japan, 12-16 November 2018.	

- Talk on *Ultraviolet and optical view of galaxies in Coma Supercluster*, Young Astronomer’s Meet (YAM), Physical Research laboratory (PRL), Ahmedabad, India, 24-28 September 2018.
- Talk on *An analytical study of ram pressure stripping of galaxies*, Franco-Indian Astronomy School: From Re-ionization to Large Scale Structure- A multi-wavelength Approach, IUCAA, Pune, India, 11-17 February 2018.
- Poster on *Ram Pressure Stripping: An analytical approach*, XXXVI Meeting of Astronomical Society of India, Osmania University, Hyderabad, India, 5-9 February 2018.

WORKSHOPS

- Attended *Recent Advances in Galaxy Formation and Reionization* at Yonsei University, Seoul, South Korea, 6-10 November 2022.
- Workshop on *High-Performance Scientific Computing* at IISER Thiruvananthapuram, India, 6-10 June 2016.
- Training program on *Linux and Linux system administration* (duration 5 days) and a follow-up training program on *Network services and administration* (received A+ grade), IISER Mohali, 15 February - 1 March 2016.
- National workshop on *Cosmology with HI 21cm line*, Raman Research Institute (RRI), Bengaluru, India, 23-26 June 2015.
- Fourteenth Workshop on *Instrumentation for Planetary Exploration*, D.D. University, Nadiad, Gujarat, India, 6-10 January 2014.
- BITS-IUCAA Workshop on *Gravitational Wave Data Analysis* during BITS Pilani, Goa campus, India, 17-21 December 2012.
- Workshop on *Numerical Methods And Differential Equations in computational Science*, University of Delhi, 1-5 February 2011.
- Workshop on the *Virtual Observatory*, Sri Venkateswara College, University of Delhi, 25 January 2011.

PUBLICATIONS

- [1] **Ankit Singh**, Shreya Davessar, Mamta Gulati, Jasjeet Singh Bagla, Meenu Prajapati, “Study of the dependence of ram pressure stripping on the orbital parameters of the galaxies”, accepted for publication in *MNRAS*, 2024.
- [2] Jaewon Yoo, Changbom Park, Cristiano Sabiu, **Singh, A.**, Jongwan Ko, Jaehyun Lee, Christophe Pichon, M. James Jee, Brad K. Gibson, Juhan Kim, Jihye Shin, Yonghwi Kim, Hyowon Kim, “Spatial Distribution of Intracluster Light versus Dark Matter in Horizon Run 5”, accepted for publication *ApJ*, 2024.
- [3] **Ankit Singh**, Changbom Park, Ena Choi, Juhan Kim, Hyunsung Jun, Brad K. Gibson, Yonghwi Kim, Jaehyun Lee, Owain Snaith, “On the Effects of Local Environment on Active Galactic Nucleus (AGN) in the Horizon Run 5 Simulation”, 2023, *ApJ*, 953, 64.
- [4] **Ankit Singh**, Mamta Gulati and Jasjeet Singh Bagla, “Ram pressure stripping: An analytical approach”, 2019, *MNRAS*, 489:5582-5593
- [5] **Ankit Singh**, Smriti Mahajan and Devika Shobhana “Caught in the web: Tale of filament galaxies”, 2019, *Proceedings of the International Astronomical Union*, 15(S341):304-306

[6] Smriti Mahajan, **Ankit Singh** and Devika Shobhana “Ultraviolet and optical view of galaxies in the Coma supercluster”, 2018, *MNRAS*, 478:4336-4347

AWARDS/
RECOGNITION

- Registration fee waiver for *The physical processes shaping the stellar and gaseous histories of galaxies* conference at Pisa, Italy, 27-31 May 2024.
- Registration fee waiver (AUD 750) and accommodation support (AUD 250) for attending *LSST@ASIA: Exploring the Wide, Fast, Deep Universe* conference at UNSW, Sydney, Australia from 20-23 May 2019.
- Registration fee waiver and travel support for presenting in *XXXVII Meeting of Astronomical Society of India*, 18-22 February 2019.
- Travel support for attending *Franco-Indian Astronomy School*, IUCAA, Pune, India, 11-17 February 2018.
- Awarded Certificate of Merit (top 1% marks) in Science & Technology subject in secondary school examination by Central Board of Secondary Education (CBSE) in 2007.

TEACHING
EXPERIENCE

- Lab tutor in the *Astrophysics* course in Semester-II in 2017-18.
- Teaching assistant for *Numerical Methods* course in Semester-II in 2014-15 and 2016-17.
- Teaching assistant for *Electricity and Magnetism lab* at IISER Mohali in Semester-II in 2014-15.
- Teaching assistant for the Nuclear Physics lab at IISER Mohali for Semester-I in years 2014-15, 2015-16 and 2016-17.

ACADEMIC
OUTREACH
ACTIVITIES

- Organised sky-watching events in the Chandigarh Tricity area on 10 June 2017, 2 February and 28 October 2018 in collaboration with the Society for Promotion of Science & Technology, India.
- Invited as a grader in the 10th International Olympiad on Astronomy and Astrophysics (IOAA), Bhubaneswar, India, 9-19 December 2016.
- Volunteer in *Moon Carnival: longest and darkest total lunar eclipse*, Nehru Planetarium, New Delhi, June 15, 2011.

ORGANISATION

- LOC member for KIAS 10th Workshop on Cosmology and Structure Formation held in KIAS from 24-28 October 2022.
- Organized HR5 collaboration meeting (online mode) on 24 August, 2021.
- Volunteered in The International Conference on Gravitation and Cosmology (ICGC), IISER Mohali, 14-18 December 2016.
- Volunteered in 10th Meeting on Field Theoretic Aspects of Gravity, IISER Mohali, December 2014.

COMPUTATIONAL
SKILLS

- Working knowledge of Python, Fortran and C.
- Experience in High-Performance Computing (HPC) management and usage.