Arpita Ganguly

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PERSONAL INFORMATION

Date of Birth: 24/11/2000
Nationality: Indian
Languages: English(IELTS: 8.0), Hindi(native), Bengali(native)
Github Page: https://github.com/ArpitaGanguly24
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EDUCATION

Master of Science, Astrophysics, University of Geneva, GPA: 5.04/6.0 (till date)   **Sep 2022 — July 2024**

Bachelor of Science, Physics(Honours), Scottish Church College,Calcutta University, GPA: 8.637/10.000   **Aug 2019 — Aug 2022**

ICSE (CLASS X) : Science stream, Delhi Public School Newtown, Kolkata,India, Score: 98.25%   **April 2016 — April 2017**

ISC (CLASS XII): Science stream, Delhi Public School Newtown, Kolkata,India, Score: 93.25%   **April 2018 — April 2019**

ACADEMIC PROJECTS

Master Thesis   Advisors: Prof. Pascal Oesch, Dr. Mengyuan Xiao   **October 2023 — July 2024**

- **Topic:** Galaxy morphology with JWST at $z>3$

- Member of research group "Galaxy Build-up at Cosmic Dawn" at UNIGE

Astrophysics Lab 2   Advisors: Prof. François Bouchy, Dr.Lucile Mignon   **Feb 2023 — July 2023**

- Scheduler Optimisation for NIRPS Observations devoted to search for exoplanets around M dwarfs   5.25/6.00

Astrophysics Lab 1   Advisors: Dr. David Nagy, Dr. Miroslava Dessauges-Zavadsky   **Sep 2022 — Dec 2022**

- Photometric study of integrated properties of strongly lensed high-redshift galaxies using JWST and HST   5.00/6.00

Undergraduate Research   **(Scottish Church College, Calcutta University, Kolkata, India)**
- **Independent research**   **August 2021 — August 2022**

  – **Topic:** Spread of COVID-19 through N-step Percolation Process

  – Performed independent research on SARS-CoV2 Dynamics and Developed a predictive analysis framework based on the Glazmann-Matveev Model using similarity in dynamics with cluster formation and percolation in chaotic and non-linear systems

RESEARCH INTERESTS

- Galaxy morphology and star formation at high-redshift
- Linking observational data to cosmological simulations in context of galaxy formation and evolution for early galaxies
- Galaxy build-up of massive primordial galaxies
- Clumpiness of gravitationally lensed star forming galaxies at high-redshift

SUMMER SCHOOLS, WORKSHOPS AND CONFERENCES

- Sokendai Asia Winter School , NAOJ   **Feb 2021, Feb 2022**
- 2021 QISKIT Global Summer School on Quantum Machine Learning by IBM   **July 2021**
- Gravitational Wave Open Data Workshop, a LIGO-VIRGO Collaboration   **May 2021**
- NEXSCL|Exoplanet Demographics, NASA Exoplanet Science Institute, IPAC/Caltech   **Nov 2020**
- 2020 Sagan Exoplanet Summer Workshop, NASA's Exoplanet Exploration Program   **July 2020**

Awards

International Asteroid Search Campaign **May 2021**
- Recognised for two preliminary asteroid discoveries by SSERD (Society for Space Education and Research Development) in the International Asteroid Search Campaign, by the International Astronomical Search Collaboration in collaboration with NASA's citizen science project.

IAAC(International Astronomy and Astrophysics Competition) **Jan 2020, Jan 2021**
- Earned the Bronze Honour in the International Astronomy and Astrophysics competition,2020 and 2021.

All-Rounder (Principal's Choice Award) **April 2019**

Technical Skills

- **OS:** MacOs, Linux, Windows
- **Programming Languages:** Python, Java
- **Fitting & Interactive Software:** ORIGIN, GNU Plot, GALFIT, DS9, TOPCAT, Astrometrica
- **Writing:** LaTeX, MS Office
- **Designing:** HTML, CSS, Adobe Photoshop

Outreach Work

- Social media takeover of the official UNIGE page to promote the Astrophysics Master Program at Geneva Observatory. **Nov 2023**
- International Asteroid Search Campaign **June 2021**

  – Worked on the back-end of the campaign to train young citizen scientists on using `Astrometrica` and worked on analysis of submissions, discerning and validating accurate discoveries.

- Vigyan Samagam **Nov 2019**

  – Young student presenter for the Thirty Meter Telescope Mega-Science project in the first-ever Mega-Science Exhibition to be held in India, Vigyan Samagam.

Social Service and Volunteer Work

- **Former Vice President** of Rotaract Club of Calcutta NorthEast(student body under Rotary Club International) **Jun 2020 - Jun 2022**

  – worked actively in data verification for medical aid leads during the pandemic.

  – participated in fundraising charity drives, plantation drives and helped spread awareness about major international events and causes.