

Agnibha Banerjee

5TH (FINAL) YEAR BS-MS DUAL DEGREE STUDENT

Indian Institute of Science Education and Research, Kolkata, India

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Education

Indian Institute of Science Education and Research (IISER), Kolkata

2016 - Present

B.S. - M.S. DUAL DEGREE IN PHYSICS

- 8th Semester CGPA: 8.89/10

Adamas International School, Kolkata

2016

CLASS XII, COUNCIL FOR THE INDIAN SCHOOL CERTIFICATE EXAMINATIONS (CISCE)

- Percentage: 97.0%

Adamas International School, Kolkata

2014

CLASS X, COUNCIL FOR THE INDIAN SCHOOL CERTIFICATE EXAMINATIONS (CISCE)

- Percentage: 96.0%

Research Experience

McGill University, Montreal

May 2019 - Aug. 2019

SUPERVISED BY: DR. NICOLAS B. COWAN

- Implemented analytical models for calculating the incident light map on ultra-short period exoplanets.
- Developed a Python code to calculate the incident and reflected light maps from the model.
- Explored the possibility of using Slepian functions as basis maps for hemispheres to get more accurate thermal maps of exoplanets.

Indian Institute of Technology (IIT), Indore

Jun. 2018 - Jul. 2018

SUPERVISED BY: DR. BHARGAV VAIDYA

- Developed a Monte Carlo radiative transfer code in Python to generate output images when a light beam passes through an optical density grid.
- Gained experience in creating Monte Carlo Simulations, working with different geometries of grids and visualizing large amounts of data.

Awards & Recognitions

MITACS Globalink Research Internship

May 2019 - Aug. 2019

COMPETITIVE PROGRAM FOR INTERNATIONAL UNDERGRADUATES TO PURSUE A SUMMER RESEARCH INTERNSHIP IN CANADA

Top 1% (Top 25) in the National Graduate Physics Examination

Jun. 2018

NATIONAL EXAMINATION CONDUCTED BY THE INDIAN ASSOCIATION OF PHYSICS TEACHERS FOR INDIAN UNDERGRADUATES

Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship

Aug. 2017

NATIONAL PROGRAM OF FELLOWSHIP IN BASIC SCIENCES, FUNDED BY THE GOVERNMENT OF INDIA

Jagadis Bose National Science Talent Search Senior Scholarship

Oct. 2016

SCHOLARSHIP AWARDED TO CREATIVE UNDERGRADUATES IN WEST BENGAL FOR SCIENCE AND TECHNOLOGY

DST INSPIRE Scholarship

Aug. 2016

SCHOLARSHIP PROGRAM IMPLEMENTED BY THE DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVERNMENT OF INDIA

Skills

Programming	Python, Java, C, SQL, JavaScript, LaTeX, Git/GitHub
Software	MATLAB, Mathematica, Inkscape
Operating Systems	Linux, Windows
Languages	English, Bengali, Hindi

Conferences & Schools Attended

INTERNATIONAL

Exoplanets III , Heidelberg (Online)	Jul. 2020
2020 Sagan Exoplanet Summer Virtual Workshop , NExScl, California Institute of Technology (Online)	Jul. 2020
MOBSTER-1 Virtual Conference , Online	Jul. 2020
Canadian Astronomy Society (CASCA) Annual General Meeting 2019 , McGill University, Montreal	Jun. 2019

DOMESTIC

Finesse Hackathon: Hands-on Interferometer Modelling , IUCAA, Pune	Mar. 2020
Data Science in Astrophysics and Gravitational Wave Research , IIIT, Allahabad	Nov. 2019
NVidia GPU Based High Performance Computing Workshop , IISER, Kolkata	Oct. 2019
Introductory Summer School on Astronomy and Astrophysics , IUCAA, Pune	May 2018 - Jun. 2018
Astronomy Camp and Sky Observation Training , JBNSTS, Kolkata	Mar. 2018
Young Talent Nurture Mathematics Summer School , IIST, Trivandrum	May 2017
Vijyoshi Science Camp , IISER, Kolkata	Dec. 2016
JBSNTS Seminar "Those Who Make Us Proud" , JBNSTS, Kolkata	Oct. 2016
DST INSPIRE Science Camp , Adamas University, Kolkata	May 2014

Presentations

Adaptive Optics and Its Applications in Astronomy , IISER, Kolkata	Nov. 2019
Exoplanets Very Close to Their Host Star , McGill Space Institute (Summer Student Talks), Montreal	Aug. 2019

Institute Service & Volunteering

Data Analyst and Website Designer

CESSI IISER KOLKATA OUTREACH INITIATIVE ON COVID-19

Jun. 2020 - Jul. 2020

- Created self-updating plots representing several aspects of the impact of COVID-19 in India.
- Assisted in the design of the website: <http://www.cessi.in/coronavirus>.

Volunteer Teacher

EK PEHAL: STUDENT INITIATIVE TO EMPOWER CHILDREN OF THE LESS PRIVILEGED MEMBERS OF SOCIETY

Sep. 2019 - Feb. 2020

- Taught English to middle and high school students.
- Designed and graded tests.

Volunteer Trainer

STUDENT SOLAR AMBASSADOR: OUTREACH INITIATIVE TO INCREASE AWARENESS ABOUT SOLAR ENERGY

Oct. 2019

- Organized a Solar Energy Workshop for high school students.
- Guided students in the assembly of a Solar Study Lamp.

Class Representative

DEPARTMENT OF PHYSICAL SCIENCES, IISER KOLKATA

Aug. 2019 - Jul. 2020

- Represented the issues of students to the faculty.
- Collaborated with faculty and students to schedule online examinations during the COVID-19 Lockdown.

Volunteer

INSTITUTE FOR RESEARCH ON EXOPLANETS (OUTREACH KIOSK), EUREKA FESTIVAL, MONTREAL

Jun. 2019

- Guided children on telescope usage.
- Communicated general information about exoplanets to the public.

Convener

SELF DEFENCE CLUB, IISER KOLKATA

Aug. 2018- Apr. 2019

- Served as an office bearer of the club.
- Organized belt upgradation tests.

Event Organizer

INQUIVESTA (IISER KOLKATA COLLEGE FEST)

Feb. 2018

- Managed the logistics of a water rocket event.
- Led the team members in hosting the event.

Extra Curricular Activities

Silver Honor (Top 10%), *International Astronomy and Astrophysics Competition*

Jul. 2020

Red Belt, *Martial Arts and Sports Karate Organization*

Mar. 2019

Finalist, *School State Level Swimming Competition, IIT Kharagpur*

2015

References

AVAILABLE UPON REQUEST.