Aditya Dwarkesh

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Academic Qualifications

2019-Present Indian Institute for Science Education and Research, Kolkata, Department of Mathematics & Statistics.

Five-year integrated BS-MS Course in Mathematics and Statistics, Current CGPA: 8.68

2019 RN Podar School, Mumbai.

Central Board of Secondary Education (CBSE), Class 12, Subjects: Physics, Chemistry, Mathematics, English, Engineering Graphics. Final grade: 91.4%

Research & Publications

Selected publications

- Dwarkesh, Aditya (2022). Wilderness & Civilization: A Phenomenological Perspective. Filosofie-Tijdschrift, jr. 32. no. 2.
- Dwarkesh, Aditya & Voleti, Satbhav (2021). Gödel's Incompleteness Theorems: An Interdisciplinary Review. In: Indian Science Cruiser, Vol 35, No 4, og 34-50.
- o Dwarkesh, Aditya et. al (2020), A Highschooler's Guide to GeV-Range Electromagnetism, The Physics Educator, Vol. 02, No. 03.
- Dwarkesh, A. (2019). 'Fundamentality' as a Linguistic Paradigm and Linguistics as a Fundamental Paradigm. In: Aguirre, A., Foster, B., Merali, Z. (eds) What is Fundamental?. The Frontiers Collection. Springer, Cham.

Research work

- o Completed a project under the supervision of Dr. Amartya Goswami (University of Johannesburg) which generalizes Jacobson's structure theory of rings to non-associative (Novikov) algebras. Pre-print can be found
- Selected for the MITACS Globalink 2023 summer research internship. To work under the supervision of Dr. Martin Frankland (University of Regina, Canada) for a duration of 12 weeks on the cohomology of graded Lie algebras.

Awards

May 2018- Beamline for Schools, European Council for Nuclear Research (CERN)

2018

- December Beamline for Schools (BL4S) is an official competition powered by CERN, the European Organization for Nuclear Research, in Geneva, which invites teams of high-school students to propose a scientific experiment to be performed.
 - o Competed against 195 teams from 42 countries, and became the first Asian team to secure a top spot and win a sponsored trip to Geneva, Switzerland and over a span of 15 days, executed our experiment at the T9 beamline of Proton Synchotron, where we attempted to heuristically reconstruct the Lorentz force equation based on the empirical data we gathered from our runs.

December Department of Atomic Energy, Government of India

- 2018 Felicitated by Chairman of Bhabha Atomic Research Centre, K.N. Vyas.
 - Awarded for extraordinary contribution in representing India at European Council of Physics (CERN) BL4S.

December Foundational Questions Institute, (FQXi)

- 2017 Participated and won a prize in FQXi's 2017 essay contest on the topic of 'What is Fundamental?'
 - Competed alongside established physicists and Nobel laureates such as Sean M. Carroll, Brian D. Josephson and many more towards whom the contest was aimed
 - Subsequently, the essay was awarded a prize and was published by Springer as part of a compendium of the winning essays in its 'Frontiers of Science' collection

Co-curricular Activities

April 2022 - The Mohanpur Circle

Ongoing • Co-founded a philosophy discussion group which specializes in phenomenology

o Organised various public screenings in order to generate interest and engagement in these areas

December PhilSci India Winter School

2021 • Attended talks and interacted with various top-level researchers on topics in the philosophy of science through a 5-day program

Gave a presentation on the last day based on one of the talks attended

June 2021 - Institute of Philosophy, Zagreb, "In & Out—Questioning the Philosophical Canon"

July 2021 o Participated as a student and engaged with graduate students and esteemed lecturers in a summer school which focused on the origin and shortcomings of present-day philosophy's "canon"

2020 Reading Project

Read texts on model theory, first-order logic and automata theory under the supervision of Dr. Mihir Chakraborty

August 2019 RAD@home, Astronomy Collaboratory, India

- Was selected to participate in a one day long training session intended to enable young undergraduate students to engage in astronomical observational research at a professional level
- o Learned to make multi-wavelength astronomical images by accessing freely available archival data on NASA Skyview

Outreach

April 2022 **Department Day**, Poster Presentation

 In collaboration with a friend, designed and presented a poster which explains Gödel's incompleteness theorems to the layman.

July Managing editor, Cogito - The Thought Capsule, Student-run magazine

2020-March • Managing editor and occasionally contributing author for the college's official science communication magazine

2022 O Link to website

March 2019 Invited lecturer, Raising a Mathematician (RAMTP), National Training Program

o Delivered invited lectures to the students for a day on an introduction to particle physics and helped demonstrate elementary but visually striking physics experiments such as Young's double slit.

2017 The Eyries and Pyres of Thought, TED Organization

 Started a newsletter in collaboration with the TED organization and my peers and contributed articles for three issues on the topic of Philosophy.

References

Somnath Basu, Associate Professor,

Department of Mathematics and Satistics, Indian Institute for Science Education and Research, Kolkata, somnath.basu@iiserkol.ac.in

Mihir Chakraborty, Visiting Professor,

School of Cognitive Science, Jadavpur University, Kolkata, mihirc4@gmail.com

Shyam Wuppuluri, Research Associate,

RN Podar School, shyam.wuppuluri@gmail.com

John Borstlap, MPhil. (Cantab), john.borstlap@ziggo.nl