Suhas Mahesh

Twitter LinkedIn Website suhas.mahesh@utoronto.ca

I am a materials physicist whose work unites computation, ML and experiments for pressing materials discovery challenges in photovoltaics, catalysis and corrosion resistance.

Employment

Sep 2021– **Schmidt Science Fellow** link — University of Toronto
Electrical & Computer Engineering (with Ted Sargent, Jason Hattrick-Simpers)

- Developed HTE for Meta's Open Catalyst Project
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2016-2021 **PhD Researcher (Physics)** link — University of Oxford
Rhodes Scholarship

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Education

2016–2021 **Doctor of Philosophy in Condensed Matter Physics** — University of Oxford
Rhodes Scholarship link; Advisor: Prof. Henry Snaith, FRS link
Optical and Electronic Studies of New Materials for Multijunction Photovoltaics link
Thesis award (2021) from MPLS Division, University of Oxford

2012–2016 **Bachelor of Science in physics** — Indian Institute of Science
With highest honors

2016 **Research Intern** — Italian Institute of Technology
Inkjet Processed Semiconductors link

2015 **Research Intern** — University of Groningen, Netherlands
Carbon Nanotube based FETs link

Published Articles and Book Chapters

Please see my Google Scholar

Patents

Pending Snaith, H. J and Mahesh, S. **Multi-Junction Optoelectronic Device Comprising Device Interlayer**, International Application Number: PCT/GB2019/053550 link

Grants, Fellowships and Prizes

2024 Catalyst Interdisciplinary Award ($10,000) link
2023 Software engineering grant (1 FTE-year), Virtual Institute for Scientific Software link
2023 Acceleration Consortium Fellowship ($110,000) link
2022 Optoelectronics Materials Discovery Grant, Schmidt Futures ($42,000) link
2021 **Schmidt Science Fellowship** ($200,000) link
2021 **PhD Thesis Award, MPLS Division, University of Oxford**
2019 Best Early Career Presentation, SUNRISE Solar Symposium (London)
2019 Best Early Career Presentation, Indo-UK Optoelectronics Meet (Pune, India)
2016 **Rhodes Scholarship** ($150,000)

Recent Invited Talks

2024 Automated Catalyst Discovery using GAM workflows — Schmidt Science Summit
2023 ML-guided Discovery of Two-Dimensional Perovskites (invited) — Synthace
2023 Beating the Negative Data Problem in Materials Science (invited) — Rhodes Trust
2022 Thermodynamics of Optoelectronic Devices (invited) — University of Oxford
2021 Computational Modelling of Solar Absorbers (invited) — IISER Berhampur
2021 Spatial Inhomogeneities in Perovskite Photovoltaics (invited) — SUNRISE Symposium
2020 Origin of Phase Instabilities in Perovskite Semiconductors (invited) — Oxford PV

Outreach and Community

2023 Selector for Rhodes Scholarship — Rhodes Trust
2021 Selector for the RISE Award link — RISE
2019 Conference for Undergraduate Women in Physics (co-organiser) — Institute of Physics
2019 Stargazing Science Festival (outreach exhibit) link — University of Oxford
2018 Oxford Science Festival (outreach exhibit) link — University of Oxford
2014-16 Head of Scholarships, Notebook Drive link — Notebook Drive
Notebook Drive is an NGO working to improve access to primary education in rural India.

Other Interests

2023–	Co-creator of ambuda.org link Breakthrough digital library of Sanskrit with intelligent ML-based tools
Feb 2024	*How to Love in Sanskrit* (HarperCollins; co-authored with Anusha Rao) Compendium of 3000 years of Sanskrit verse in English translation