

SUHAS MAHESH

Twitter

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Website

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

Experience

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|-----------|--|--------------------------------------|
| Sep 2021– | Schmidt Science Fellow link
Electrical & Computer Engineering (with Ted Sargent, Jason Hattrick-Simpers) | University of Toronto |
| 2016–2021 | PhD Researcher (Physics) link
Rhodes Scholarship | University of Oxford |
| 2016 | Research Intern
Inkjet Processed Semiconductors link | Italian Institute of Technology |
| 2015 | Research Intern
Carbon Nanotube based FETs link | University of Groningen, Netherlands |

Education

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|-----------|---|-----------------------------|
| 2016–2021 | Doctor of Philosophy in Condensed Matter Physics
Rhodes Scholarship link ; Advisor: Prof. Henry Snaith, FRS link
<i>Optical and Electronic Studies of New Materials for Multijunction Photovoltaics</i> link
Thesis award (2021) from MPLS Division, University of Oxford | University of Oxford |
| 2012–2016 | Bachelor of Science (Physics)
With Distinction. KVPY Fellowship. | Indian Institute of Science |

Published Articles and Book Chapters

Please see my [Google Scholar](#)

Patents

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

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|------|---|
| 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

