Stanford

Hari Manoharan

Associate Professor of Physics

CONTACT INFORMATION

- **Administrative Contact**

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Bio

ACADEMIC APPOINTMENTS

- Associate Professor, Physics
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Principal Investigator, Stanford Institute for Materials and Energy Sciences

Teaching

COURSES

2025-26

- Quantum Information and Computing, Entangled and Unscrambled: PHYSICS 19N (Aut)
- Thermodynamics, Kinetic Theory, and Statistical Mechanics I: PHYSICS 170 (Win)

2024-25

- Quantum Information: Visions and Emerging Technologies: PHYSICS 14N (Spr)
- Thermodynamics, Kinetic Theory, and Statistical Mechanics I: PHYSICS 170 (Win)

2023-24

- Quantum Information: Visions and Emerging Technologies: PHYSICS 14N (Spr)
- Quantum and Thermal Physics: PHYSICS 71 (Win)

2022-23

- Quantum Mechanics I: PHYSICS 130 (Spr)
- Quantum and Thermal Physics: PHYSICS 71 (Win)

Publications

PUBLICATIONS

- **Nanoscale Electronic Transparency of Wafer-Scale Hexagonal Boron Nitride.** *Nano letters*
  Zerger, C. Z., Rodenbach, L. K., Chen, Y., Safvati, B., Brubaker, M. Z., Tran, S., Chen, T., Li, M., Li, L., Goldhaber-Gordon, D., Manoharan, H. C.

2022

- **Signatures of two-dimensional superconductivity emerging within a three-dimensional host superconductor.** *Proceedings of the National Academy of Sciences of the United States of America*
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- **Quantum engineered Kondo lattices.** *Nature communications*
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- **Phase Separation of Dirac Electrons in Topological Insulators at the Spatial Limit** *NANO LETTERS*
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- **Activating and optimizing MoS2 basal planes for hydrogen evolution through the formation of strained sulphur vacancies** *NATURE MATERIALS*
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- **Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide** *NATURE COMMUNICATIONS*
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- **Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide.** *Nature communications*
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- **Stripe-like nanoscale structural phase separation in superconducting BaPb1-xBixO3.** *Nature communications*
  Giraldo-Gallo, P., Zhang, Y., Parra, C., Manoharan, H. C., Beasley, M. R., Geballe, T. H., Kramer, M. J., Fisher, I. R.
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- **Unconventional molecule-resolved current rectification in diamondoid-fullerene hybrids** *NATURE COMMUNICATIONS*
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- **Artificial honeycomb lattices for electrons, atoms and photons** *NATURE NANOTECHNOLOGY*
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- **Quantum holographic encoding in a two-dimensional electron gas** *NATURE NANOTECHNOLOGY*
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