Adithya Sriram

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Dept. of Physics 3600 Ramona St
Stanford University Palo Alto, CA, 94306

EDUCATION

Stanford University 2021-
Ph.D. in Physics *(In Progress)*

University of Pennsylvania 2016-2020
M.S. in Physics; B.A in Physics & Biophysics; B.S.E. in Chemical Engineering
Distinction in Physics and Biophysics, *Summa Cum Laude*

RESEARCH INTERESTS

Many body quantum dynamics, quantum information & computing, statistical mechanics, numerical and computational methods

RESEARCH EXPERIENCE

Graduate Research Assistant, 2021–
Stanford University
Description: Many body quantum dynamics; Quantum information
Advisor: Vedika Khemani

Post-Bacc Researcher, 2020–2021
University of Pennsylvania & Center for Computational Quantum Physics
Description: Floquet engineering quantum materials
Advisor: Martin Claassen

Fulbright Scholar, 2021–2021
Max Planck Institute for Quantum Optics
Description: Computational studies of ultrafast phenomena in 2D materials
Advisor: Vladislov Yakovlev

Undergraduate Research Assistant, 2017–2020
University of Pennsylvania
Description: Developing graphene transistor biochemical sensors
Advisor: A.T. Charlie Johnson

PUBLICATIONS

[1] A. Sriram, T. Rakovszky, V. Khemani, and M. Ippoliti, "Topology, criticality, and dynamically generated qubits in a stochastic measurement-only kitaev model," *Submitted*, Jul. 2022. DOI: 10.48550/arxiv.2207.07096.

[2] E. V. Boström, A. Sriram, M. Claassen, and A. Rubio, "Controlling the magnetic state of the proximate quantum spin liquid -rucl3 with an optical cavity," *Submitted*, Nov. 2022. DOI: 10.48550/arXiv.2211.07247.

[3] A. Sriram and M. Claassen, "Light-induced control of magnetic phases in kitaev quantum magnets," *Phys. Rev. Research*, vol. 4, p. L032036, 3 Sep. 2022. DOI: 10.1103/PhysRevResearch.4.L032036.

[4] Z. Gao, P. Ducos, H. Ye, J. Zauberman, A. Sriram, X. Yang, M. W. Mitchell, D. Lekkas, D. Brisson, and A. T. C. Johnson, "Graphene transistor arrays functionalized with genetically engineered antibody fragments for lyme disease diagnosis.," *2D Materials*, vol. 7, no. 2, 2020. DOI: 10.1088/2053-1583/ab5dce.

[5] R. Vishnubhotla, A. Sriram, O. O. Dickens, S. V. Mandyam, J. Ping, E. Adu-Beng, and A. T. C. Johnson, "Attomolar detection of ss-DNA without amplification and capture of long target sequences with graphene biosensors.," *IEEE Sensors Journal*, vol. 20, no. 11, pp. 5720–5724, 2020. DOI: 10.1109/JSEN.2020.2973949.

HONORS & AWARDS

National Science Foundation Graduate Research Fellowship 2020
Fulbright U.S. Student Program Scholarship 2020
University of Pennsylvania Dean's Scholar 2020
Roy and Diana Vagelos Science Challenge Award 2019
Phi Beta Kappa Junior Inductee 2019
NASA Pennsylvania Space Grant Consortium Scholarship 2019

TEACHING EXPERIENCE

Teaching Assistant for PHYSICS 43: Electricity and Magnetism, 2022–2022
Stanford University

Taught weekly discussion sections, graded assignments

Teaching Assistant for PHYS 137: Community Physics Initiative, 2018–2020
University of Pennsylvania

Developed a new physics course, coordinating both the Penn physics department and the Netter center for community partnerships, for undergraduates to teach high school students basic physics. Redesigned the course from the ground up and wrote all original lab activities and projects.

Teaching Assistant for PHYS 411/412: Quantum Mechanics, 2018–2020
University of Pennsylvania

Graded weekly homework assignments, led review sessions and substituted as lecturer.

Physics Curriculum Chair, Moelis Access Science, 2018–2020
Netter Center for Community Partnerships

Taught physics to high school students at a West Philadelphia High School for two periods each week. Coordinated other students and prepared them for teaching in an urban high school setting.

Learning Assistant for CHEM 251: Biochemistry, 2019–2019
University of Pennsylvania

Led weekly recitation sections focused on problem solving.

Volunteer Teacher, 2018–2019
Access Engineering

Taught high school students the basics of a variety of engineering labs and assisted them in the activities.

Teaching Assistant for PHYS 151: Electromagnetism Lab, 2018–2018
University of Pennsylvania

Lead weekly laboratory sections and assisted students with the lab activities.

OTHER EXPERIENCE

Hospice Volunteer, 2018–2019
Philadelphia Veterans Affairs Medical Center

Volunteered with the chaplain service at the VA medical center. Escorted patients to and from the service each week and also participated as a musician in the service.

Information Technology Assistant, 2016–2018
College House Computing

Solved technical issues for any student that was experiencing difficulties with their phone, laptop, etc..