

Sriram Gopalakrishnan

CONTACT INFO sriramgk98@gmail.com

INTERESTS Scientific Computing, Applied Math, Device Physics, Quantum Information

EDUCATION **University of Waterloo** 2020-23
MSc. in Physics [Dr. B. Yoshida](#)
Affiliation: Perimeter Institute, Institute for Quantum Computing

IIT Madras 2016-20
B.Tech. in Engineering Physics [Dr. U. Khankhoje](#)
Project: Vector 3D FEM for electromagnetic scattering

PAST
EMPLOYMENT **Tata Institute of Fundamental Research** 2019
Research Intern (VSRP fellowship) [Dr. R. Vijay](#)
Awarded [best project](#) in condensed matter physics & material science

Homi Bhabha Centre for Science Education 2017-18
Research Intern (NIUS fellowship) [Dr. P. Pathak](#)

RESEARCH **Ring-resonator-based coupling architecture for enhanced connectivity in a superconducting multi-qubit network** [\[doi\]](#)
S. Hazra, A. Bhattacharjee, M. Chand, K.V. Salunkhe, **SG**, M.P. Patankar, R. Vijay
Physical Review Applied (2021)
Coverage: [Nature in-brief](#)

Landau quantization of a circular Quantum Dot using the BenDaniel-Duke boundary condition [\[doi\]](#)
SG, S. Biswas, S. Handa
Superlattices and Microstructures (2020)

SELECTED
COURSEWORK **Waterloo:** Methods in Computational Physics, Quantum Algorithms, Theory of QI
IIT Madras: Stochastic Processes, Dynamical Systems, Convex Optimization

TEACHING
EXPERIENCE - Assisted teaching large undergraduate physics classes at UWaterloo. Duties included tutorials, lab presentations, office hours, grading, proctoring, and problem setting
ECE 106 : Electricity and Magnetism
PHYS 111L : Mechanics Lab
PHYS 175 : Introduction to the Universe
PHYS 359 : Statistical Mechanics

- [Dr. R. Epp](#): "Thanks for grading the midterm test so carefully and conscientiously, and also thank you for the huge amount of work keeping up with the physepp emails!"
- [Dr. A. Jamison](#): "It is always nice to see them learn something new from you"
- lab feedback: [PHYS 111L](#), example problem set: [ECE 106](#)

OTHER PROJECTS **Convex Optimization:** [solved](#) three practically interesting optimization [tasks](#) in CVX
- recovering sparse signal from noisy measurement [via second-order-conic-programming]
- revenue maximization [via linear-programming]
- low-rank matrix completion [via semidefinite-programming]