

Jason Saroni

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github: github.com/jsaroni

EDUCATION

- Iowa State University (ISU) – Ames, Iowa, USA** Aug 2019 – May 2025
- Doctor of Philosophy in Physics and Quantum Computing, Ames National Lab Graduate Research Assistant
 - Top score in PhD qualifying exam, classical physics
 - Quantum Algorithms Member of Fermilab's SQMS Center
 - IBM Qiskit Advocate
 - Certified Qiskit Developer
- Brandeis University – Massachusetts, Waltham, USA** Aug 2017 - May 2019
- Master of Science in Physics
- University of Notre Dame – Indiana, South Bend, USA** Aug 2012 - May 2016
- Bachelor of Science with major in Physics
 - Hesburgh-Yusko Scholar 2016
 - Sigma Pi Sigma National Physics Honor Society member
- African Leadership Academy (ALA) – Johannesburg, South Africa** 2010-2012
- Leadership, Entrepreneurship, and African Studies curriculum
 - Top in 11th grade SAASTA South African Olympiad physical sciences 2011
 - Completed Cambridge A-level Exams in Physics, Chemistry, Math, and English
- Lesotho High School – Maseru, Lesotho** 2006-2010
- Top performer in national Junior Certificate exam 2008

EXPERIENCE

- Condensed Matter Physics Research – Waltham, South Bend, and Ames,** 2012 – Present
- 2023 APS March Meeting Focus Session Speaker and Poster Presenter at SQMS Annual Retreat: Reconstructing Thermal Quantum Quench Dynamics from Pure States
 - Online lightning talk at QCS/SQMS Quantum Algorithms Workshop 2022
 - 2022 APS March Meeting Focus Session Speaker: Simulating thermal quantum quenches with a variational quantum algorithm
 - Graduate research assistance for condensed matter theory with research focus including quantum computing at ISU
 - Used high performance computing cluster, Python, Julia, ITensor, ITensorNetworks, cuQuantum, Mathematica, MATLAB, C, and C++ for condensed matter physics simulations
 - Awarded College of Science Summer Undergraduate Research Fellowship for 10 week research during the summer of 2015 at the University of Notre Dame
- STEM Ambassador and Physics Club Co-President – South Bend, USA** 2015-2016
- Holding office hours every week to help retention of STEM students in my dorm and running physics club activities at the University of Notre Dame
- Research Experience for Undergraduates – South Bend, USA** June 2014 – Aug 2014
- Worked on ab-initio nuclear theory for 10 weeks in a Research Experience for Undergraduates (REU) program
 - Made an oral poster presentation at the Summer Undergraduate Research Symposium (SURS) and a poster presentation at the Fall Undergraduate Research Fair (FURF), both at the University of Notre Dame
- London International Youth Science Forum (LIYSF) – London, United Kingdom** 2011
- Selected for participation in LIYSF having achieved top spot in 11th grade section of SAASTA South African science Olympiad physical sciences– Met leading experts in different fields and aspiring scientists from all over the world at Imperial College London in a two-week science immersion program
- First Author Quantum Related Paper Publication (Published in Physical Review B Oct/06/2023)**

- Reconstructing Thermal Quantum Quench Dynamics from Pure States, <https://arxiv.org/pdf/2307.14508.pdf> Jul 2023

Other Experience

- Womanium Global Quantum Scholarship achieving all certificates
<https://github.com/jsaroni/jsaroni/tree/main/Certificates%20and%20Badges/2023> 2023
- QHack 2023 won NVIDIA CUDA Quantum, IBM, and AWS powerups Mar 2023

- MIT iQuHACK certificate of completion Jan 2022
- Advanced badges from 2022 and 2023 IBM quantum challenges 2022, 2023
- Participated in IBM's open science quantum computing team projects 2020, 2021, 2023
- Quantum computing and sensing summer school, USQIS summer school 2021, 2023
- Graduate teaching assistance, Brandeis University and Iowa State University 2017 - 2021