

Have you ever heard of qubits and quantum materials?

Wondering how to program a quantum computer?

Interested in learning quantum technologies?

The Quantum Week is a multi-day event hosted by the QSEC in order to recognize the work that creates awe-inspiring quantum technologies today and in the future. It will be a virtual conference-style event that consists of technical seminars, tech showcase and research posters, career info sessions, and casual hangouts in a virtual conference hall.



4/22/2021

AM sessions: Introduction to Quantum &
Quantum Computing
PM sessions: Tech Transfer & Entrepreneurship

4/23/2021

AM Sessions: Quantum Materials, Sensing, and
Career Panel
PM Sessions: Poster Presentations & Info Booths

Zoom Registration: <https://tinyurl.com/QWeekReg>

Virtual Conference Hall: <https://tinyurl.com/QuantumWeek>

Join us to

- GATHER virtually with friends
- LEARN Quantum and how it may work for you
- EXPLORE future education & career

<https://qsec.gmu.edu>

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Agenda

4/22/2021

09:00 am. Introduction to Quantum

Dr. Patrick Vora, Director of QSEC & Associate Professor of Physics, GMU

09:30 am. Quantum Computing: What Is It?

Dr. Maria Emelianenko, Associate Director of QSEC & Professor of Mathematics, GMU

09:45 am. The Master's Concentration of Quantum Information Science & Engineering

Dr. Jessica Rosenberg, Director of Education of QSEC & Associate Professor of Physics, GMU

Dr. Mingzhen Tian, Associate Professor of Physics, GMU

10:00 am. Research Showcase: Optimal Two-Qubit Quantum Circuit Synthesis

Jacob Weston, Undergraduate Student, Department of Physics & Astronomy, GMU

Connor Mooney, Undergraduate Student, Department of Mathematical Sciences, GMU

10:30 am. Estimation of Overlaps Among an Arbitrary Number of Quantum States

Xavier Gitiaux, Graduate Student, Department of Computer Science, GMU

11:00 am. Program a Real Quantum Computer: Qiskit Introduction

Ian Morris, Undergraduate Student, Department of Physics & Astronomy, GMU

11:30 am. Quantum Information Processing with Superconducting Qubits

Alan Salari, Founder and CEO, Quaxys

12:00 pm. Lunch Break

02:00 pm. Bench to Billions – Building Quantum Startups

Piotr Kulczakowicz, Sr. Technology Licensing Associate, University of Maryland

02:30 pm. The Quantum Startup Foundry and Mason's Resource for Entrepreneurship

Julie Lenzer, Chief Innovation Officer, University of Maryland

Paula Sorrell, Associate Vice President of Innovation and Economic Development, GMU

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09:00 am. Quantum Materials Introduction

Dr. Igor Mazin, Professor of Practice in Advanced Studies in Theoretical Physics, GMU

Dr. Nirmal Ghimire, Assistant Professor of Physics, GMU

09:30 am. Materials Discovery

Dr. Peter Siegfried, Postdoctoral Fellow, Department of Physics & Astronomy, GMU

10:00 am. Into the Laboratory of Sensing Researches with Quantum Materials

Dr. Pilgyu Kang, Associate Director of QSEC & Assistant Professor of Mechanical Engineering, GMU

Dr. John Robert Cressman, Associate Professor of Physics, GMU

10:30 am. Exquisite Sensitivity Using Quantum Sensors of Magnetic Fields

Karen Sauer, Associate Professor of Physics, GMU

11:00 am. Panel Discussion of Career Opportunities in Quantum

Dr. Patrick Vora, Director of QSEC & Associate Professor of Physics, GMU

Dr. Jacob Farinholt, Lead Quantum Scientist, Booz Allen Hamilton

Dr. Brandon Rodenburg, Physicist and Quantum Information Scientist, MITRE Corporation

Dr. Neil Zimmerman, Atom Scale Device Group Leader, NIST

12:00 pm. Lunch Break

02:00 pm. Virtual Poster Session