



Quantum is the Future

Quantum physics isn't just theory or applications from science-fiction. It's becoming increasingly important for business leaders, educators, and our students at every level to understand quantum. Why? Because the next wave of transformative innovation—whether in manufacturing, logistics, finance, medicine, or national security—will be powered by quantum principles.

Here are some exciting possibilities on the horizon:

Quantum Computing: Imagine computers that can solve problems in seconds that would take today's most powerful supercomputers millions of years.

Quantum Networking: This could enable completely secure communication, protecting sensitive information in ways beyond classical network security including classical cryptography.

Quantum Sensors: Ultra-sensitive devices could lead to breakthroughs in areas like early disease detection and environmental monitoring.

Advanced Materials: Quantum physics could lead to the discovery of new materials with properties we can't even imagine today.

Quantum is for Everyone

Making quantum physics accessible remains one of its biggest challenges. As quantum technologies move from the lab into real-world use, everyone—especially educators—needs to understand what's at stake. The good news? You don't need to be a tech startup to advance quantum technologies. Curiosity, rigor, and a drive to inspire others are all it takes to start your quantum journey.

Be quantum-ready

The Faculty and Researcher Learning Series equips faculty across South Carolina to tap into quantum technologies and resources, helping them apply quantum tools, expand research horizons, and embed Quantum Information Science (QIS) into teaching and curricula.

The series, which is free to attend, features experts from leading quantum companies and organizations such as IonQ, qBraid, D-Wave, and more.

They share their knowledge on topics such as:

- + Learn quantum fundamentals and research implications
- + Explore technical insights, real-world applications, and teaching methods
- + Score practical experience in workshops and discover resources and funding
- + Gain the quantum advantage



Sample Agenda for an Introductory Event in the Faculty & Researcher Learning Series

Introduction to Quantum and Research Applications

Tuesday, June 11
9:00am - 4:00pm, CECAS,
109 Daniel Dr, Clemson, SC

01: **Why does Quantum Information Science (QIS) matter?**

02: **What problem types are feasible on a quantum computer?**

03: **Demonstration Applications** (e.g., traditional quantum physics, financial applications, engineering research, etc.)

04: **Q&A**

"Quantum computing will transform research, industry, and the world. Partnering with SC Quantum helps our faculty and researchers learn about this emerging technology and keep the State of South Carolina at the cutting edge."

– Dan Noneaker, Clemson

Interested?

Here's how to participate:

- + Host or sponsor a Faculty Learning Series event for your school or department
- + Customize an event to upskill colleagues or dive into specific research applications

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