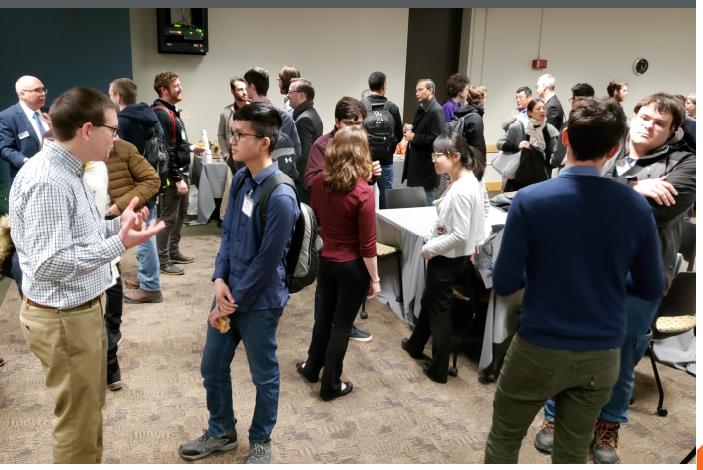
Photonics for Quantum 2
June 23-25, 2020

RIT announces the Photonics for Quantum 2 (PfQ2) Workshop, the second in a series started in January 2019. This year's added panels and working groups will enrich the conversation for using photons in quantum technologies.

Sponsorship opportunities are available
Registration opens early 2020



Program Includes:
Invited talks
Contributed talks
Panels
Posters
Working groups

Panels and Working Groups:
Workforce and Education
Government
Women in Quantum

For more information contact:
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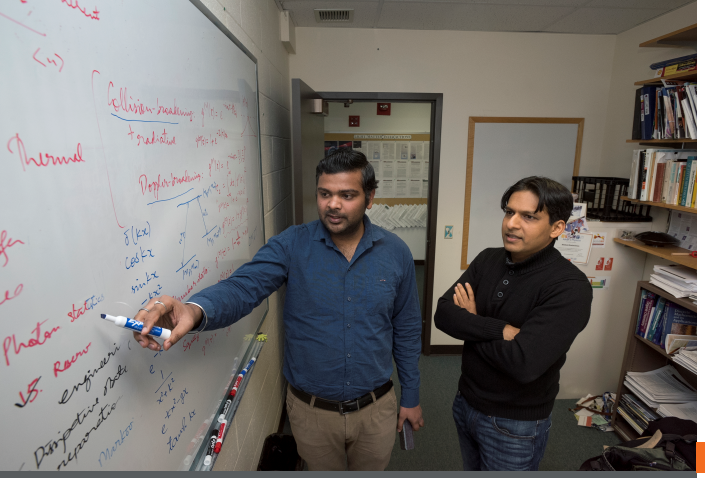
Future Photon Initiative
21 Professors
12 Research Groups
5 RIT Colleges
50+ Student Researchers

FPI cross-disciplinary teams collaborate with external university groups, industry, and national laboratories to develop and commercialize new photonic device technology.

Learn more about RIT Photonics here:
rit.edu/fpi
@RITphotonics

Quantum Activities at RIT

RIT



NSF Quantum Leap Challenge Institutes: Conceptualization Grant

Professors

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Collaborators

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Lehman College CUNY

SUNY University at Buffalo

University of Rochester

University of Toronto

University of Waterloo

Air Force Research Lab

Army Research Lab

AIM Photonics

L3Harris

TOPTICA Photonics

Xanadu

RIT and collaborators from NY and Canada won an NSF Quantum Leap Challenge Institute Conceptualization Grant.

During a one-year project funded by the grant, the team will conceptualize the Quantum Photonic Institute (QPI) to create a rich ecosystem of quantum science and technology capabilities through quantum photonic integrated circuits. These planning activates will allow us to write a compelling proposal for an institute that would build and use the only U.S-based open-access Quantum Foundry for quantum photonic circuits.

QPI will research quantum photonic information science and develop related devices for application in quantum computing, communication, and sensing. It will converge theory, simulation, design, fabrication, characterization, and deployment in end applications, leading to new breakthrough scientific advances.

Quantum Foundry Model

Inspired by the electronics revolution, we will implement a quantum foundry to accelerate the development of advanced devices and increase community access to advanced fabrication. In the foundry model, device design is abstracted away from fabrication, which is performed by robust, vetted processes at central locations.

We will explore the development of a Quantum Process Design Kit (QPDK) for designing Quantum photonic Integrated circuits at a high level of abstraction. The QPDK will be complemented by novel calibration, characterization, and detection methods.

Education and Workforce

The conceptualization grant will be used to gather data and develop new partnerships that will support education and workforce development for Quantum Information Science and Technology training careers.

Some primary questions to be addressed during the planning phase are: What are the key skills and training needed in industry and government labs? and What quantum learning opportunities currently exist within partner educational institutions?