



Technology Innovation  
Management



Government  
of Canada



National Research Council




## International Workshop

### Quantum Technology Entrepreneurship:

Unlock the Secrets of Emerging Quantum Technology-Enabled Opportunities!

 Date: Tuesday, November 12<sup>th</sup>, 2024;  Time: 9:00am-13:00pm

 Free registration: <https://sprott.carleton.ca/event/quantum-technology-entrepreneurshipunlock-the-secrets-of-emerging-quantum-technology-enabled-opportunities/>

Are you curious about the revolutionary potential of quantum technologies in business and innovation? Don't miss this chance to gain valuable insights into one of our time's most promising technological frontiers. This online event will equip you with the knowledge to navigate the ongoing quantum revolution.

#### What to Expect

- An accessible overview of key quantum technologies and their applications
- Insights into market readiness and commercialization timelines
- Expert talks from leading academics in the field
- Real-world case studies featuring successful quantum technology startups

#### Who Should Attend

- Business and innovation management professionals
- Business and engineering faculty and students
- Aspiring entrepreneurs exploring future cutting-edge opportunities
- Government officials involved in technology policy

#### Agenda

09:00-09:15	<b>Opening</b> – Stoyan Tanev (Carleton U), Daniel Schallmo (UAS, Neu-Ulm) & Martin Laforest (Quantacet)
09:15-09:40	<b>Khabat Heshami</b> : The emergence of quantum technologies
09:40-10:05	<b>Vedran Dunjko</b> : Recent progress in machine learning and AI in the quantum domain
10:05-10:30	<b>Connor Kupchak</b> : The future quantum Internet: Impacts and expectations
10:30-10:55	<b>Michel Barbeau</b> : A computer scientist's view on quantum sensing
10:55-11:15	<b>Lisa Lambert</b> : An overview of the quantum industry in Canada
11:15-11:35	<b>Martin Laforest</b> : Managing new venture capital and incubation of quantum technology companies
11:35-11:55	<b>David Roy-Guay</b> : CEO, SB Quantum, <a href="https://sbquantum.com/">https://sbquantum.com/</a>
11:55-12:15	<b>Bruno Couillard</b> : CEO & Co-Founder, <a href="https://crypto4a.com/">https://crypto4a.com/</a>
12:15-12:35	<b>Samuel Mugel</b> : PhD, CTO, Multiverse Computing, <a href="https://multiversecomputing.com/">https://multiversecomputing.com/</a>
12:35-13:00	<b>Q&amp;A</b>



Carleton  
University

Sprott  
School of Business

For more info contact Stoyan Tanev, Associate Professor, TIM Program, Sprott School of Business: [stoyan.tanev@carleton.ca](mailto:stoyan.tanev@carleton.ca)

The workshop is organized by the [Technology Innovation Management Program](#) at the [Sprott School of Business](#), Carleton University, the [Special Interest Group on Digital Disruption & Transformation](#) of the International Society for Professional Innovation Management (ISPIM), the [National Research Council of Canada](#), and [Quantacet](#) – a VC fund based in Quebec focusing on quantum technology-enabled business opportunities. The event was organized with the support of [TiE Ottawa](#) and the [Carleton Quantum Computing Society](#).

## Bios of Invited Speakers

**Michel Barbeau, PhD**, is a Professor of Computer Science at Carleton University. Dr. Barbeau received both his Master's and Ph.D. from Université de Montreal. He then returned to Université de Sherbrooke, where he completed his undergraduate degree in Computer Science in 1985, to join the faculty as a professor. Teaching at Université de Sherbrooke from 1991 to 1999, Dr. Barbeau spent his last academic year as a visiting researcher at the University of Aizu, Japan. He joined the School of Computer Science at Carleton University in 2000. <https://carleton.ca/scs/people/michel-barbeau/>.

**Vedran Dunjko, PhD**, Professor of Quantum Computing, University of Leiden, The Netherlands. Vedran Dunjko's research interest lies in the intersection of computer science and quantum physics, including quantum computing and quantum cryptography. Over the course of the last few years, he has been focusing on the interplay between quantum computing, machine learning, and artificial intelligence. <https://www.universiteitleiden.nl/en/staffmembers/vedran-dunjko#tab-1>

**Bruno Couillard**, CEO & Co-Founder, [www.crypto4a.com](http://www.crypto4a.com). Bruno is co-founder of Crypto4A Technologies Inc., developing crypto-agile and post-quantum cybersecurity products. These products are designed for deploying, managing, and protecting digital keys, workloads, and information across diverse environments. <https://crypto4a.com/teams/bruno-couillard/>.

**Khabat Heshami, PhD**, Research Officer, National Research Council of Canada. Dr. Heshami obtained a PhD in physics from the University of Calgary in 2013. After a postdoc at the Institute for Quantum Science and Technology, he joined the National Research Council of Canada (NRC) in September 2014 as a Research Associate. In 2017 he became a Research Officer at the theory and computation group in NRC. Since January 2018, Khabat is an adjunct professor at the Department of Physics at the University of Ottawa. Khabat's interests cover photonic quantum information processing, development of quantum networks, and light-matter interfaces for linear and non-linear quantum optics. <https://www.uottawa.ca/faculty-science/professors/khabat-heshami>.

**Connor Kupchak, PhD**, Assistant Professor, Quantum Information Technology (CuQIT) Group, Department of Electronics, Faculty of Engineering and Design, Carleton University. Connor is the research group leader with projects focused on quantum communication technologies using light. He has more than 10 years of experimental experience performing research in numerous advanced photonic laboratories. Specialties have included: femtosecond setups, waveguide modeling and characterization, nonlinear optics, quantum optical engineering and device characterization, and atomic light-matter systems. <https://carleton.ca/doe/people/connor-kupchak/>.

**Martin Laforest** holds a PhD in quantum computing from the University of Waterloo's Institute for Quantum Computing (IQC). For 9 years, he led the quantum outreach efforts at IQC, interacting with key stakeholders, including government, industry, the media, and the public, on the potential impacts of quantum technologies. He then joined ISARA Corporation, a quantum-safe cybersecurity startup, where he assumed business development and product management responsibilities before launching Quantacet. <https://www.quantacet.com/en/team/>

**Lisa Lambert** is the inaugural CEO of [Quantum Industry Canada](https://www.quantumindustry.ca/) (QIC), the national, industry-led consortium uniting quantum technology companies and allied organizations. Under her leadership, QIC is dedicated to unlocking the full potential of Canada's quantum sector, aiming to advance the country's position as a global leader in quantum innovation while bolstering Canadian business success and national prosperity. Throughout her career, Lisa's been a pioneer of collaborative innovation at the intersection of science, technology, and society. She has spearheaded trailblazing projects worldwide, working alongside leading minds and organizations to drive transformative change and create lasting impact. <https://www.linkedin.com/in/lmlambert/>

**Samuel Mugel, PhD**, CTO, Multiverse Computing, is an expert in quantum computing and quantum machine learning. He has a PhD jointly awarded by ICFO (Spain) and the University of Southampton (UK). Formerly Computational physicist at Cortirio (UK), Technical Director at The Quantum Revolution Fund, and Founder and CTO at Groundstate Consulting. He is an Advisor for the McKinsey Tech Council and the Forbes Tech Council, and Mentor at the Creative Destruction Lab. <https://www.linkedin.com/in/sam-mugel/>

**David Roy-Guay, PhD**, co-founded of SB Quantum following his graduate studies at Institut Quantique, Sherbrooke, QC. He has been driven by the opportunity to explore new market opportunities shaped by emerging quantum technologies. His recklessness is part of the journey, both in business and his hobbies, sometimes causing bruises and good laughs. <https://sbquantum.com/>

**Daniel Schallmo, PhD**, is a Full Professor at the University of Applied Sciences, Neu-Ulm, Germany. He is the Director of the Institute for Entrepreneurship, Innovation, and Sustainability and a member of the Institute for Digital Transformation. Daniel leads the Digital Disruption and Transformation Special Interest Group of the International Society for Professional Innovation Management.

**Stoyan Tanev, PhD**, Associate Professor, Technology Innovation Management Program, Sprott School of Business. Dr. Tanev's expertise is in technology entrepreneurship and new venture creation, digital innovation management, design thinking, and digital transformation in established firms. His research focuses on how entrepreneurs identify new opportunities, shape new businesses, or transform existing organizations to meet disruptive challenges and create new value propositions for key stakeholders. Stoyan has a multidisciplinary background including a PhD in Physics from the University Pierre & Marie Curie (Sorbonne), Paris, France, and a PhD in Theology from Sofia University, Sofia, Bulgaria. <https://sprott.carleton.ca/profile/stoyan-tanev-2/>