

## IQTI invites you to a special industry session from Capgemini team on Tuesday, 18<sup>th</sup> January 2022 at 4:15 PM– 6:30 PM IST

### Session 1: **Topic: Opportunities in quantum computing for drug discovery**

**Abstract:** Drug discovery is thought to be one of the natural future applications of quantum technologies. This session will give an overview of the challenges facing the pharma industry and current approaches in drug discovery. We will discuss the areas being explored today for future quantum advantage, and some of the interesting challenges and possibilities which lie ahead.

#### **Speaker: Dr. Sam Genway**

**About the Speaker:** Sam has a background in theoretical quantum physics with a PhD in quantum dynamics and thermalisation and postdoctoral research in the simulation of open quantum systems. He has since spent many years supporting commercial R&D organisations with cutting-edge technologies.

### Session 2: **Topic: QC in Finance**

**Abstract:** Quantum finance is one of the most researched application areas for quantum algorithms. The ubiquity of complex stochastic models, the industry historic adoption of quantitative research and obvious business cases with large potential returns make it an ideal candidate for quantum advantage. However, progress is not without challenge. Algorithms with “only” quadratic speedups risk any speedup being dwarfed by (error correcting) overhead and nisq-era quantum machine learning remains unproven. Luckily, there is hope on the horizon. During this talk, we’ll the state-of-the-art quantum finance algorithms, and explore the quantum advantage for financial institutions

#### **Speaker: Dr. Julian van Velzen**

**About the Speaker:** Julian is CTIO and Head of the Capgemini Quantum Lab. He has a background in condensed matter physics, before turning to the IT industry. At Capgemini, he initiated the quantum group, and since, has helped clients to increase their quantum readiness.

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