

CAAPS Colloquium

Centre for Advanced Analytics and
Predictive Sciences (CAAPS)

23. Februar 2023 | 16:00 Uhr

Gebäude T (Institut für Physik), Raum 1001



Programm

16:00 Uhr

The Quantum Way of Doing Computations, Simulations and Measurements

Prof. Rainer Blatt

Wissenschaftlicher Direktor am Institut
für Quantenoptik und Quanteninforma-
tion (IQOQI) in Innsbruck, wissen-
schaftlicher Koordinator des Munich Quantum
Valley



17:00 Uhr

Reinforcement Learning for Quantum Technologies

Prof. Florian Marquardt

Direktor des Max Planck Instituts für die
Physik des Lichts in Erlangen



18:00 Uhr

Empfang und offene Diskussion



Rainer Blatt studied physics and received his PhD at the University of Mainz. As postdoctoral fellow, he worked on laser cooling of atomic beams with John L. Hall (Nobelpreis 2005) in Boulder (USA), and as a research assistant at the University of Hamburg with Peter E. Toschek he worked with single trapped ions. In 1994, he became

professor of physics at the University of Göttingen and in 1995, he accepted a chair position at the Institut für Experimentalphysik of the University of Innsbruck, where he works with trapped ions in Paul traps for quantum computers, quantum simulations and quantum metrology. Since 2003 he is research director at the Institute for Quantum Optics and Quantum Information (IQOQI) of the Austrian Academy of Sciences (ÖAW) in Innsbruck. Rainer Blatt is co-founder of Alpine Quantum Technologies GmbH (AQT) in Innsbruck, a company developing commercial quantum computers. Since 2021, he is the scientific manager and coordinator of the Munich Quantum Valley. For his quantum information research, he received the Schrödinger-Prize of the ÖAW in 2006, the Stern-Gerlach medal of the German Physical Society (DPG) in 2012, the John-Stewart-Bell prize of Centre for Quantum Information and Quantum Control (Toronto) in 2015 and the Micius Quantum Prize 2018. Rainer Blatt is a member of the Austrian Academy of Sciences, the Spanish Royal Academy of Sciences and the National Academy of Sciences of the USA.



Florian Marquardt is a theoretical physicist whose current focus is on applying machine learning to scientific discovery and discovering physical systems that help for machine learning. He has a long-standing track record in areas bridging nanophysics and quantum optics, among them significant contributions to the theory of cavity optomechanics and the theory of superconducting circuit quantum electrodynamics. He is currently a scientific director at the Max Planck Institute for the Science of Light in Erlangen, Germany, as well as a professor at the local university.

He studied at the university of Bayreuth, Germany, then did his PhD in Basel, Switzerland (finishing in 2002), afterwards went on to a postdoctoral stay at Yale University and a junior research group leader position at the Ludwig-Maximilians University in Munich, before moving to Erlangen.