QP-TECH.EDU

Photonics and Algorithms for Quantum Computing

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With the Workshop on 'Photonics and Algorithms for Quantum Computing,' scientists of the Paderborn University and Fraunhofer IOF offer an up-to-date overview on the current technologies of photonics as well as algorithms for quantum computing via the collaborative platform of the Friedrich Schiller University Jena. The presentations ranging from topics of algorithms over specialized hardware for quantum computing towards the interconnection and security of quantum computers.

Through the application-oriented research carried out by the speakers in diverse cooperative projects with partners from science and industry, concrete application scenarios and trends can be illustrated in addition to the mediation of technological fundamentals.

Contact Person:

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August 30th, 2024

Join Zoom-Meeting
https://uni-jena-de.zoom-x.de/j/69302230618

Meeting ID: 693 0223 0618

Passcode: PQC2024

- Free staff training to educate personnel in quantum technologies and quantum computing
- Aimed at managers and leaders
- No prior knowledge about quantum mechanics required
- Quantum Computing and Algorithms

Workshop Program

9:30 am	Welcome and Introduction
9:35 am	**Lecture** **Quantum Algorithms: from Qubit to Exponential Acceleration** Dr. Falk Eilenberger (Fraunhofer IOF)
10:00 am	Q/A-Session / Speaker Talk
10:15 am	**Lecture** **Photonics Hardware for Quantum Computers** Dr. Erik Beckert (Fraunhofer IOF)
10:45 am	Q/A-Session/ Speaker Talk
11:00 am	Break (15 minutes)
11:15 am	**Lecture** **Variational Quantum Algorithms and Security in the Quantum Era** Dr. Lial Khaluf (Paderborn University, Department of Computer Science, AG Quantum Computation)
11:45 am	Q/A-Session/ Speaker Talk
12:00 pm	**Lecture** **Quantum Networks: from Quantum Processors to Global Satellite Networks** Prof. Dr. Fabian Steinlechner (Friedrich-Schiller-Universität Jena / Fraunhofer IOF)
12:30 pm	Q/A-Session/ Speaker Talk
12:45 pm	Closing Session and Opportunity for Questions / Feedback

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