

World Quantum Day 2023



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome from DESY, UHH, TUHH

DESY - ITT Director Arik Willner

UHH - President Hauke Heekeren

TUHH - President Andreas Timm-Giel

Session Classification: Welcome and Introduction

Contribution ID: 2

Type: **not specified**

Introduction

Presenter: BORRAS, Kerstin (DESY and RWTH Aachen University)

Session Classification: Welcome and Introduction

Contribution ID: 3

Type: **not specified**

Quantum Computing Spin-off Talk

Presenter: JANSEN, Karl (Z_ZPPT (Zeuthen Particle PhysicsTheory))

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 4

Type: **not specified**

Panel Introduction

Moderator Henning Moritz

Panel:

Rainer Blatt, Dieter Jaksch, Klaus Sengstock, Karl Jansen, Sven Groppe

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 5

Type: **not specified**

Diskussion

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 6

Type: **not specified**

Quantum Materials Spin-off Talk

Presenter: MOLL, Philip

Session Classification: Networking in the Foyer

Contribution ID: 7

Type: **not specified**

Panel Introduction

Moderator Kai Rossnagel

Panel

Philip Moll, Michael Thorwart, Thore Posske, Ralf Röhlsberger

Session Classification: Networking in the Foyer

Contribution ID: 8

Type: **not specified**

Discussion

Session Classification: Networking in the Foyer

Contribution ID: 9

Type: **not specified**

Quantum Sensing and Quantum Communication Spin-off Talk

Presenter: SCHNABEL, Roman (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: **10**

Type: **not specified**

Panel Introduction

Moderator: Oliver Gerberding

Panel:

Roman Schnabel, Ralf Riedinger, Steven Worm, Khiem Trieu

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: **11**

Type: **not specified**

Discussion

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 12

Type: **not specified**

Technology Transfer Spin-off Talk

Presenter: BOLLE, Michael (Carl-Zeiss-Stiftung)

Session Classification: Technology Transfer, Start-Ups, Jobs

Contribution ID: **13**

Type: **not specified**

Panel Introduction

Moderator Ilka Mahns

Panel

Michael Bolle (Carl-Zeiss-Stiftung), Dominik Saile (DLR), Alois Krittli (ARIC),
Philipp Wessels-Staarmann(UHH), Anusch Taraz (TUHH), Franz Kärtner (DESY)

Session Classification: Technology Transfer, Start-Ups, Jobs

Contribution ID: **14**

Type: **not specified**

Discussion

Session Classification: Technology Transfer, Start-Ups, Jobs

Contribution ID: 15

Type: **not specified**

RYMAX - Quantum Optimization with Rydberg Atoms

Thursday 13 April 2023 17:10 (15 minutes)

Presenter: LUICK, Niclas (UHH)

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 16

Type: **not specified**

Quantum Computing at TUHH

Thursday 13 April 2023 17:25 (15 minutes)

Presenter: KLIESCH, Martin (TUHH)

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 17

Type: **not specified**

DESY Quantum

Thursday 13 April 2023 17:40 (15 minutes)

Presenter: BORRAS, Kerstin (DESY and RWTH Aachen University)

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: **18**

Type: **not specified**

DLR Innovationscenter

Thursday 13 April 2023 17:55 (15 minutes)

Presenter: PIERROT, Alain (DLR)

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: **19**

Type: **not specified**

Hamburg Quantum Innovation Capital

Thursday 13 April 2023 18:10 (15 minutes)

Presenters: MEHMEL, Benedikt (HQIC); ROTERMUND, Natalie (HQIC)

Session Classification: Quantum Research Areas and Technology Transfer - Presentations

Contribution ID: 20

Type: **not specified**

Machine-Learning assisted quantum computing

Friday 14 April 2023 09:45 (15 minutes)

Presenter: MATHEY, Ludwig (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 21

Type: **not specified**

Efficient readout of quantum computers

Friday 14 April 2023 09:15 (15 minutes)

Presenter: GRESCH, Alexander (TUHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 22

Type: **not specified**

Quantum Computing at DESY

Friday 14 April 2023 09:30 (15 minutes)

Presenter: MELONI, Federico (ATLAS (ATLAS SM and Beyond))

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 23

Type: **not specified**

Quantum Machine Learning for Detector Simulation

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 24

Type: **not specified**

ALQU (Algorithms for QUantum computer development using hardware-software-codesign): A DLR-QCI project

Friday 14 April 2023 09:00 (15 minutes)

Presenter: SCHUHMACHER, Peter Ken (DLR)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 25

Type: **not specified**

Quantum Materials at DESY

Friday 14 April 2023 10:20 (15 minutes)

Presenter: ROSSNAGEL, Kai (FS-SXQM (Soft X-ray Spectroscopy of Quantum Mat.))

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 26

Type: **not specified**

Novel Quantum Materials at UHH

Friday 14 April 2023 10:35 (25 minutes)

Presenter: LARS TIEMANN, Chitra Sharma, (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 27

Type: **not specified**

Discussion

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 28

Type: **not specified**

Quantum spin helices as quantum memory?

Friday 14 April 2023 11:00 (15 minutes)

Presenter: POSSKE, Thore (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 29

Type: **not specified**

A superconducting single-photon detector for ALPS II and other new physics searches

Friday 14 April 2023 11:15 (15 minutes)

Presenter: OTHMAN, Gulden (UNI/EXP (Uni Hamburg, Institut für Experimentalphysik))

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 30

Type: **not specified**

Spinning DESY: Quantum Control of Molecular Rotation

Friday 14 April 2023 11:30 (15 minutes)

Presenter: TRIPPEL, Sebastian (FS-CFEL-1-CMI (FS-CFEL-1 Fachgruppe CMI))

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 31

Type: **not specified**

Fibre-based one-sided device independent QKD using quadrature entangled light at 1550nm

Friday 14 April 2023 12:20 (15 minutes)

Presenter: SCHNABEL, Roman (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 32

Type: **not specified**

Practicable Quantum Networks safe and reliable transmission of quantum data

Friday 14 April 2023 12:05 (15 minutes)

Presenter: RIEDINGER, Ralf (UHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 33

Type: **not specified**

Towards Scalable Quantum Circuits on Chip: Challenges and Enabling Technologies

Friday 14 April 2023 12:35 (15 minutes)

Presenter: LIPKA, Timo (TUHH)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 34

Type: **not specified**

DLR Quantum Computing Initiative

Friday 14 April 2023 13:05 (15 minutes)

Presenter: AXMANN, Robert (DLR)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 35

Type: **not specified**

Quantum computing in maritime logistics

Friday 14 April 2023 13:20 (15 minutes)

Presenter: RIZVANOLLI, Anisa (Fraunhofer CML)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 36

Type: **not specified**

Innovation and Technology Transfer @ DESY

Friday 14 April 2023 13:50 (15 minutes)

Presenter: BROCK, Sabine (DESY)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 37

Type: **not specified**

QUTAC: An industry consortium to advance the application of quantum computing

Friday 14 April 2023 13:35 (15 minutes)

Presenter: DOETSCH, Joseph (LHIND)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer

Contribution ID: 38

Type: **not specified**

IKS Hamburg - Chances and challenges of collaborations between startups and corporates

Friday 14 April 2023 14:05 (15 minutes)

Presenter: VOGT, Florian (HQIC)

Session Classification: Spotlight Presentations from Quantum Research Areas and Technology Transfer