

## Breakdown of Agenda for Individual Main Sessions

### Tuesday, October 4th

#### **11:15 - 12:15 K5 Q-DESSI Quantum Development Environment, System Software & Integration**

11:15 - 11:25	Martin Schulz	Introduction and Overview
11:25 - 11:40	Robert Wille	Technical Deep Dive
11:40 - 11:55	Laura Schulz	The QIC Center Build Up
11:55 - 12:05	Martin Schulz	wrap-up, issues/challenges and status
12:05 - 12:15	Discussion/ Q&A	

#### **13:30 - 14:30 K8 HAT Hardware Adapted Theory**

13:30 - 13:45	Steffen Glaser	Introduction & Overview + optimal control at TUM-CH and at DLR (Pomplun)
13:45 - 13:53	Florian Marquardt	Quantum control sequences and quantum algorithms using RL
13:53 - 14:02	Markus Müller	Error correction
14:02 - 14:10	Jens Eisert	Characterization and benchmarking
14:10 - 14:20	Michael Hartmann	Hardware modeling including part from TUM-IN (Mendl)+ Wrap-up Summary
14:20 - 14:30	Discussion/ Q&A	

#### **14:30 - 15:30 K4 THEQUCO Theoretical Quantum Computing**

14:30 - 14:36	Ignacio Cirac	Overview
14:36 - 14:47	Christian Deppe	WP1 Fundamental concepts in quantum computing
14:47 - 14:58	Michael Hartmann on behalf of Kai Phillip Schmidt	WP2 Quantum algorithms
14:58 - 15:09	Frank Pollmann	WP3 Characterization, Validation and certification
15:09 - 15:20	Robert Koenig	WP4 Optimized fault-tolerance, error mitigation and control
15:20 - 15:30	Discussion/ Q&A	

### Wednesday, Oct 5th

#### **09:00 -10:00 K1 SQQC Superconducting Qubit Quantum Computing**

09:00 - 09:20	Stefan Filipp	Overview & Full-Stack development at WMI
09:20 - 09:30	Michael Hartmann	Qubit Design & Multi-Qubit Coupler at FAU
09:30 - 09:40	Marc Tornow/Christian Jirauschek	Materials and fabrication at TUM-EI
09:40 - 09:50	Johannes Knolle/Alexander Hohleitner	Non-reciprocal devices at TUM-PH
09:50 -10:00	Discussion/ Q&A	

<b>10:00 - 11:00</b>	<b>K3/K2 TAQC</b>	<b>Trapped Atom Quantum Computer</b>
10:00 - 10:40	Immanuel Bloch	Overview of the state of the art advancement of neutral-atom quantum computing
10:40 - 10:50	Wolfram Pernice	Integrated photonic networks
10:50 - 11:00	Discussion/ Q&A	

<b>11:30 - 12:30</b>	<b>K6 SHARE</b>	<b>Scalable Hardware &amp; Systems Engineering</b>
11:30 - 11:55	Christoph Kutter	Overview & CT2 - Semiconductor Technology and Integration for Functional and Scalable QC-Hardware
11:55 - 12:20	Thorsten Edelhäusser	CT1 - Development of Electronic Components and Systems
12:20 - 12:30	Discussion/ Q&A	

<b>17:30-18:10</b>	<b>QST-EB</b>	<b>Quantum Science and Technology Education in Bavaria</b>
17:30 - 17:45	Alexander Holleitner	Teaching domain (including the parts from Jan von Delft and Florian Marquardt)
17:45 - 18:00	Tatjana Wilk	Outreach domain
18:00 - 18:10	Discussion/ Q&A	

**Thursday, Oct 6th**

<b>09:00 - 10:00</b>	<b>K7 QACI</b>	<b>Quantum Algorithms for Application, Cloud &amp; Industry</b>
09:00 - 09:05	Claudia Eckert	Introduction & Overview
09:05 - 09:20	Pascal Debus	CT 1 - QC Application Algorithms for Industry Use-Cases
09:20 - 09:40	Robert Wille	CT 2 - Supporting Tools and Process
09:40 - 09:50	Luigi Iapichino	CT 3 - Infrastructure Access and User Support
09:50 - 10:00	Discussion/ Q&A	

<b>10:00 - 10:40</b>	<b>QTPE</b>	<b>Quantum Technology Park &amp; Entrepreneurship</b>
10:00 - 10:30	Rudolf Gross/ Christopher Trummer	Overview of ongoing activities
10:30 - 10:40	Discussion/ Q&A	