

PROGRAM



SFB WINTER WORKSHOP 2021

16.02-17.02.2021

ONLINE

| Time CET | Tuesday, 16.02 |
|-------------|--|
| 09:30-09:45 | Introduction |
| 09:45-10:15 | Chao-Yang Lu University of Science and Technology of China <i>Quantum light source engineering for quantum supremacy</i> |
| 10:15-10:30 | Coffee Break |
| 10:30-11:00 | Gemma De las Cuevas University of Innsbruck <i>Universality everywhere: from spin models to automata and neural networks</i> |
| 11:00-11:30 | Poster Teaser Session (Day 1 posters) |
| 11:30-12:30 | Lunch break |
| 12:30-13:30 | Poster Session (Day 1 posters) |
| 13:30-14:00 | Coffee break |
| 14:00-15:00 | Active Bystander Training |
| 15:00-15:30 | Coffee break |
| 15:30-16:00 | Norbert Schuch University of Vienna <i>Quantum many-body systems: An entanglement-based perspective</i> |
| 16:00-16:30 | Barbara Kraus University of Innsbruck <i>On characterization, validation, and verification of quantum devices</i> |
| 16:30-17:00 | Coffee break |
| 17:00-17:30 | Umesh Vazirani University of California at Berkeley <i>Theoretical reflections on quantum supremacy</i> |

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| Time CET | Wednesday, 17.02 |
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| 10:00-10:15 | Introduction |
| 10:15-10:45 | Wolfgang Dür University of Innsbruck <i>Genuine quantum networks - superposed tasks</i> |
| 10:45-11:00 | Coffee break |
| 11:00-11:30 | Peter Lodahl University of Copenhagen <i>Scaling-up single-photon quantum hardware towards quantum-information processing with a quantum advantage</i> |
| 11:30-12:00 | Poster Teaser Session (Day 2 posters) |
| 12:00-13:00 | Lunch break |
| 13:00-14:00 | Poster Session (Day 2 posters) |
| 14:00-14:30 | Coffee break |
| 14:30-15:00 | Valeria Saggio University of Vienna <i>Experimental quantum speed-up in reinforcement learning agents</i> |
| 15:00-15:30 | Rob Schoelkopf Yale University <i>Controlling Bosonic Modes in Circuit QED and the Application to Vibronic Molecular Simulations</i> |
| 15:30-15:45 | Closing remarks & Announcement of the Best Poster Award winner |