

NEXT GENERATION QUANTUM COMPUTING

29th and 30th of August 2022, Yokohama, Japan

Monday, 29th of August

Ion-Trap related Quantum Computing

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| 9:00 | Opening by Dr. Lothar Mennicken ,
German Embassy Tokyo | Opening by Axel Karpenstein ,
DWIH Tokyo |
| 9:30 | Silpa Muralidharan , Osaka University
<i>The quantum phase transition between MOTT insulator and superfluid in JCH system using trapped ion</i> | Prof. Kenji Toyoda , Osaka University
<i>Quantum simulations using trapped ions and technical aspects concerning them</i> |
| 11:00 | Coffee break | |
| 11:30 | Dr. Celeste Torkzaban , LUH
<i>Quantum Valley Lower Saxony: Collaborative development of a trapped-ion quantum computer and additional quantum technologies</i> | Niklas Orłowski , LUH
<i>Vibrationally-decoupled cryogenic surface-electrode ion trap for scalable quantum computing and simulation</i> |
| 13:00 | Lunch | |
| 14:30 | Peter Toth , TU Braunschweig
<i>Integrated microwave source for ion-trap based qubit control</i> | Prof. Vadim Issakov , TU Braunschweig
<i>A high speed bit-pattern generator for Josephson Arbitrary Waveform Synthesizer (JAWS)</i> |
| 16:00 | Coffee break | |
| 16:30 | Dr. Wolfgang Furtner ,
Infineon Technologies AG
<i>System architecture for trapped ion quantum computing</i> | Dr. Sebastian Lubert ,
Infineon Technologies AG
<i>A semiconductor corporation view on quantum computing</i> |
| 18:30 | Dinner | |

Tuesday, 30th of August

Superconductivity related Quantum Computing

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| 9:00 | Prof. Naoki Yamamoto , Keio University
<i>Application of quantum computer</i> | Dr. Munehiro Tada ,
NanoBridge Semiconductor, Inc.
<i>Cryogenic FPGA</i> |
| 10:30 | Coffee break | |
| 11:00 | Prof. Hiroki Ishikuro , Keio University
<i>Device characterization/ Device modeling cryogenic PDK</i> | Masayuki Ichikawa , Keio University
<i>Monitoring technique of self-heating in bulk MOSFETs at cryogenic temperatures</i> |
| 12:30 | Lunch | |
| 14:00 | Prof. Ken Uchida , University of Tokyo
<i>Device characterization for cryogenic CMOS, investigating self heating phenomena</i> | Prof. Atsushi Noguchi , University of Tokyo
<i>Hybrid quantum systems with trapped electrons via superconducting circuits</i> |
| 15:30 | Coffee break | |
| 16:00 | Podium Discussion | |