

RIKEN - LBNL Workshop on Quantum Information Science

Report of Contributions

Contribution ID: 1

Type: **not specified**

Opening remarks

Tuesday, 3 September 2024 09:00 (15 minutes)

Jonathan Carter, Mike Witherell

Presenter: Dr CARTER, Jonathan (Lawrence Berkeley National Laboratory)

Session Classification: Quantum capabilities at RIKEN and LBNL

Contribution ID: 2

Type: **not specified**

TBD

Tuesday, 3 September 2024 09:15 (40 minutes)

Presenter: Dr SATO, Mitsuhsa (R-CCS, RIKEN)

Session Classification: Quantum capabilities at RIKEN and LBNL

Contribution ID: 3

Type: **not specified**

TBD

Tuesday, 3 September 2024 09:55 (40 minutes)

Presenter: Dr DE JONG, Wibe (QSA, LBNL)

Session Classification: Quantum capabilities at RIKEN and LBNL

Contribution ID: 4

Type: **not specified**

TBD

Tuesday, 3 September 2024 10:50 (40 minutes)

Presenter: Prof. SIDDIQI, Irfan (AQT, LBNL)

Session Classification: Quantum capabilities at RIKEN and LBNL

Contribution ID: 5

Type: **not specified**

TBD

Tuesday, 3 September 2024 11:30 (40 minutes)

Presenter: Dr ABE, Eisuke (RQC, RIKEN)

Session Classification: Quantum capabilities at RIKEN and LBNL

Contribution ID: 6

Type: **not specified**

TBD

Tuesday, 3 September 2024 14:00 (20 minutes)

Presenter: Dr TABUCHI, Yutaka (RQC, RIKEN)

Session Classification: QIS technologies session 1

Contribution ID: 7

Type: **not specified**

TBD

Tuesday, 3 September 2024 14:20 (20 minutes)

Presenter: Dr NAIK, Ravi (AQT, LBNL)

Session Classification: QIS technologies session 1

Contribution ID: 8

Type: **not specified**

TBD

Tuesday, 3 September 2024 14:40 (20 minutes)

Presenter: Dr KOBAYASHI, Takashi

Session Classification: QIS technologies session 1

Contribution ID: 9

Type: **not specified**

TBD

Tuesday, 3 September 2024 15:00 (20 minutes)

Presenter: Dr CARNEY, Dan (LBNL)

Session Classification: QIS technologies session 1

Contribution ID: **10**

Type: **not specified**

TBD

Tuesday, 3 September 2024 15:40 (20 minutes)

Presenter: Dr STAMPER-KURN, Dan (LBNL/UCB)

Session Classification: QIS technologies session 1

Contribution ID: **11**

Type: **not specified**

TBD

Tuesday, 3 September 2024 16:00 (20 minutes)

Presenter: Dr FUKUHARA, Takeshi (RQC, RIKEN)

Session Classification: QIS technologies session 1

Contribution ID: **12**

Type: **not specified**

TBD

Tuesday, 3 September 2024 16:20 (20 minutes)

Presenter: Dr YOUNIS, Ed (LBNL)

Session Classification: QIS technologies session 1

Contribution ID: **13**

Type: **not specified**

TBD

Tuesday, 3 September 2024 16:40 (20 minutes)

Presenter: Dr ITO, Nobuyasu (R-CCS, RIKEN)

Session Classification: QIS technologies session 1

Contribution ID: 14

Type: **not specified**

Opening Remarks

Wednesday, 4 September 2024 09:00 (10 minutes)

Session Classification: QIS technologies session 2

Contribution ID: 15

Type: **not specified**

TBD

Wednesday, 4 September 2024 09:10 (20 minutes)

Presenter: Dr GRIFFIN, Sinead (LBNL)

Session Classification: QIS technologies session 2

Contribution ID: **16**

Type: **not specified**

TBD

Wednesday, 4 September 2024 09:30 (20 minutes)

Presenter: Prof. USHIJIMA, Ichiro (UT/RIKEN)

Session Classification: QIS technologies session 2

Contribution ID: 17

Type: **not specified**

TBD

Wednesday, 4 September 2024 09:50 (20 minutes)

Presenter: Dr MONGA, Inder (QuantNet, LBNL)

Session Classification: QIS technologies session 2

Contribution ID: **18**

Type: **not specified**

TBD

Wednesday, 4 September 2024 10:10 (20 minutes)

Presenter: Dr GNEITING, Clemens (CPR, RIKEN)

Session Classification: QIS technologies session 2

Contribution ID: **19**

Type: **not specified**

TBd

Wednesday, 4 September 2024 10:50 (20 minutes)

Presenter: Dr YONEZAWA, Hidehiro (RQC, RIKEN)

Session Classification: QIS technologies session 2

Contribution ID: **20**

Type: **not specified**

TBD

Wednesday, 4 September 2024 11:10 (20 minutes)

Presenter: Prof. SIPAHIGIL, Alp (LBNL/UCB)

Session Classification: QIS technologies session 2

Contribution ID: **21**

Type: **not specified**

TBD

Wednesday, 4 September 2024 11:30 (20 minutes)

Presenter: Dr KAWAKAMI, Erika (RQC, RIKEN)

Session Classification: QIS technologies session 2

Contribution ID: 22

Type: **not specified**

TBD

Wednesday, 4 September 2024 11:50 (20 minutes)

Presenter: Dr HAEFNER, Harmut (LBNL/UCB)

Session Classification: QIS technologies session 2

Contribution ID: 23

Type: **not specified**

Tour of AQT, ALS, Molecular Foundry

Wednesday, 4 September 2024 14:00 (1 hour)

Session Classification: Tour of quantum activities & Poster Session

Contribution ID: 24

Type: **not specified**

Parallel breakout discussion sessions

Wednesday, 4 September 2024 15:30 (1h 30m)

quantum sensing, quantum networking, quantum materials, atoms, ions, superconducting, simulators

Session Classification: Parallel discussion sessions

Contribution ID: 25

Type: **not specified**

Opening Remarks

Thursday, 5 September 2024 09:00 (15 minutes)

Presenter: Dr DOSANJH, Sudip (NERSC, LBNL)

Session Classification: HPC + Quantum (NERSC) day: Morning session

Contribution ID: 26

Type: **not specified**

TBD

Thursday, 5 September 2024 09:15 (40 minutes)

Presenter: Dr WRIGHT, Nick

Session Classification: HPC + Quantum (NERSC) day: Morning session

Contribution ID: 27

Type: **not specified**

TBD

Thursday, 5 September 2024 09:55 (40 minutes)

Presenter: Dr TSUJI, Miwako (R-CCS, RIKEN)

Session Classification: HPC + Quantum (NERSC) day: Morning session

Contribution ID: **28**

Type: **not specified**

TBD

Thursday, 5 September 2024 10:50 (40 minutes)

Presenter: Dr NOGUCHI, Atsushi (RQC, RIKEN)

Session Classification: HPC + Quantum (NERSC) day: Morning session

Contribution ID: 29

Type: **not specified**

TBD

Thursday, 5 September 2024 11:30 (40 minutes)

Presenters: Dr KLYMKO, Katherine (NERSC, LBNL); Dr NOWROUZI, Kazra (AQT, LBNL)

Session Classification: HPC + Quantum (NERSC) day: Morning session

Contribution ID: **30**

Type: **not specified**

NERSC Tour

Thursday, 5 September 2024 14:00 (1 hour)

Session Classification: NERSC Tour

Contribution ID: **31**

Type: **not specified**

Parallel breakout discussion sessions

Thursday, 5 September 2024 15:30 (1h 30m)

ability requirements for

HPC + QPU integration, error mitigation resources needed, use applications that require hybrid computing, quantum software stack needs, distributed quantum computing, quantum interface

Session Classification: Parallel discussion sessions

Contribution ID: **32**

Type: **not specified**

TBD

Friday, 6 September 2024 09:00 (20 minutes)

Presenter: Dr YOSHIOKA, Nobuyuki (UT/RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: **33**

Type: **not specified**

TBD

Friday, 6 September 2024 09:20 (20 minutes)

Presenter: Prof. LIN, Lin (LBNL/UCB)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: **34**

Type: **not specified**

TBD

Friday, 6 September 2024 09:40 (20 minutes)

Presenter: Dr ITO, Etsuko (YITP/RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: 35

Type: **not specified**

TBD

Friday, 6 September 2024 10:00 (20 minutes)

Presenter: Dr BAUER, Christian (LBNL)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: **36**

Type: **not specified**

TBD

Friday, 6 September 2024 10:40 (20 minutes)

Presenter: Dr RRAPAJ, Ermal (LBNL)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: 37

Type: **not specified**

TBD

Friday, 6 September 2024 11:00 (20 minutes)

Presenter: Dr YUNOKI, Seiji (RQC, RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: **38**

Type: **not specified**

TBD

Friday, 6 September 2024 11:20 (20 minutes)

Presenter: Dr YANG, Chao (LBNL)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: **39**

Type: **not specified**

TBD

Friday, 6 September 2024 11:40 (20 minutes)

Presenter: Dr TAKEMORI, Nayuta (Osaka, RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: 40

Type: **not specified**

TBD

Friday, 6 September 2024 13:40 (20 minutes)

Presenter: Dr MATSUURA, Shunji (iTHEMS, RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Afternoon session

Contribution ID: 41

Type: **not specified**

TBD

Friday, 6 September 2024 14:00 (20 minutes)

Presenter: Dr PERCIANO, Talita (LBNL)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Afternoon session

Contribution ID: 42

Type: **not specified**

TBD

Friday, 6 September 2024 14:20 (20 minutes)

Presenter: Dr YOSHIDA, Sota (Utsunomiya/RIKEN)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Afternoon session

Contribution ID: 43

Type: **not specified**

TBD

Friday, 6 September 2024 14:40 (20 minutes)

Presenter: Prof. BALANTEKIN, Baha (N3AS UC Berkeley, U. Wisconsin-Madison)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Afternoon session

Contribution ID: 44

Type: **not specified**

Parallel discussions along different application areas

Friday, 6 September 2024 15:30 (1 hour)

Breakout discussions (impactful apps, how to get there, possibilities for collaborations)

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Afternoon session

Contribution ID: 45

Type: **not specified**

Summary and Conclusion

Session Classification: Quantum Algorithms and Applications in Physics and Chemistry:
Morning session

Contribution ID: 46

Type: **not specified**

Poster Session

Wednesday, 4 September 2024 14:00 (1 hour)

Poster Titles:

Emori: Disturbance Evaluation Circuit for Quantum Measurements and Its Experimental Demonstration on a Quantum Computer

Taniguchi: Optimal anharmonicity suppression in Paul traps for laser-free single-spin measurements

Shirai: TBD

Ozawa: TBD

Presenters: Mr EMORI, Hakuri (Hokkaido U. / RIKEN); Mr TANIGUSHI, Kento (Tokyo U./ RIKEN); Mr OZAWA, Masanao (Chubu U. / RIKEN); Dr SHIRAI, Shotaro (RIKEN)

Session Classification: Tour of quantum activities & Poster Session