



Symposium on Neutral-Atom Quantum Computing

28. Sept. 2026 – 01. Oct. 2026

Tübingen



Timetable

Monday, 28 September — Alte Aula

8:45–9:00	Welcome – Christian Groß	
9:00–9:45	Ippei Danshita Kindai University	Theoretical studies on quantum simulation of quantum spin models
9:45–10:30	Fabio Bensch University of Tübingen	Far-from-equilibrium scaling in the transient dynamics of 2D quantum magnets
10:30–11:00	Coffee break	
11:00–11:45	Kenji Ohmori Institute for Molecular Science (IMS)	Ultrafast quantum computing with ultracold atom arrays at quantum speed limit
11:45–12:30	Matthias Weidemüller Heidelberg University	Rydberg spin glass
12:30–14:00	Lunch break	
14:00–14:30	Valentin Anthoine-Milhomme RIKEN	Electronics for cold-atom lab
14:30–15:00	Shijia Sun LMU Munich / MPQ	TBA
15:00–15:30	Yoshihiro Yabuuchi Kindai University	Stability of a vortex-antivortex pair state in the hard-core Bose-Hubbard model with long-range hopping
15:30–16:00	Coffee break	
16:00–16:30	Simon Fell University of Stuttgart	Topological phases with Rydberg blockade interactions
16:30–17:00	Chris Nill University of Tübingen	TBA
17:00–17:30	Hiroki Kuji Tokyo University of Science	STAR architecture with erasure conversion
17:30–19:30	Poster session	

Tuesday, 29 September — Alte Aula

9:00–9:45	Fabian Thielemann University of Stuttgart	An ionic clock qubit inside a circular Rydberg atom
9:45–10:30	Toshi Kusano Kyoto University	Toward hardware-efficient quantum error correction with ytterbium tweezer arrays
10:30–11:00	Coffee break	
11:00–11:45	Tiago Mendes-Santos Pasqal	Probing 2D quantum magnetism with neutral-atom quantum simulators: From ground states to dynamics
11:45–12:30	Torsten Zache University of Innsbruck	Cooling with copies: Realizing imaginary-time evolution with unitary circuits
12:30–14:00	Lunch break	
14:00–14:30	Takumi Kashimoto Kyoto University	Magnetic-field stabilization for improving Ramsey coherence in ^{87}Rb atoms
14:30–15:00	Takaharu Yoshida Tokyo University of Science	Toward a stroboscopic Rydberg dressing for atoms with resonant dipole-dipole interactions
15:00–15:30	Roberto Franco University of Tübingen	A cryogenic Sr-87 quantum processor
15:30–16:00	Coffee break	
16:00–16:30	Gebrat Porta San Miguel University of Hamburg	TBA

16:30–17:00	Keegan McGehee RIKEN	Toward a quantum information engine through measurement-based feedback control of atoms in an optical lattice
17:00–17:30	Achim Scholz University of Stuttgart	Dynamic holographic tweezer arrays
17:30–19:30	Poster session	

Wednesday, 30 September — Alte Aula

9:00–9:45	Valentin Magro Institute for Molecular Science (IMS)	Outrunning motion in interaction-driven Rydberg gates: Theoretical proposal and its future
9:45–10:30	Adrien Bouscal LMU Munich / MPQ	Cavity-coupled Rydberg arrays for logical quantum interfaces
10:30–11:00	Coffee break	
11:00–11:45	Gerhard Birkel Technical University of Darmstadt	Arrays of 1000 qubits for quantum computing and sensing
11:45–12:30	Thomas Pohl Vienna University of Technology	Time crystals in neutral atom arrays
12:30–14:00	Lunch break	
14:00–18:30	Excursion	
18:30	Conference dinner	

Thursday, 1 October — Morgenstelle 14, D4A19

9:00–9:45	Shahram Panahiyan University of Hamburg	TBA
9:45–10:30	Kritsana Srakaew Institute for Molecular Science (IMS)	Development of a neutral-atom quantum computer at IMS
10:30–11:00	Coffee break	
11:00–11:45	Masaya Kunimi Tokyo University of Science	Magnetic-field control of interactions in alkaline-earth Rydberg atoms and applications to XXZ models
11:45–12:30	Leonardo Fallani University of Florence / LENS	TBA
12:30–14:00	Lunch break	
14:00–17:00	Lab tours in Tübingen	

Friday, 2 October

Lab tours available at University of Stuttgart and LMU/MPQ in Munich		
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List of Participants

1. Makoto Abe	Waseda University / RIKEN
2. Valentin Anthoine-Milhomme	RIKEN
3. Reiji Asano	Kyoto University
4. Yuki Asari	Tokyo University of Science
5. Silpa Baburaj Sheela	University of Tübingen
6. Fabio Bensch	University of Tübingen
7. Ralf Berner	University of Stuttgart
8. Gerhard Birkel	Technical University of Darmstadt
9. Alicia Biselli	University of Stuttgart
10. Immanuel Bloch	LMU Munich / MPQ
11. Adrien Bouscal	LMU Munich / MPQ
12. Ippei Danshita	Kindai University
13. Sylvain de Leseleuc	RIKEN
14. Milena Djatchkova	University of Tübingen
15. Tom Erpelding	Helmut Schmidt University
16. Leonardo Fallani	University of Florence / LENS
17. Simon Fell	University of Stuttgart
18. Roberto Franco	University of Tübingen
19. Hannes Frank	University of Hamburg
20. Takeshi Fukuhara	Waseda University / RIKEN
21. Rito Furuchi	Kindai University
22. Pius Gerisch	University of Hamburg
23. Christian Groß	University of Tübingen
24. Daiki Hashimoto	Tokyo University of Science
25. Tomohiro Hashizume	University of Hamburg
26. Jumpei Hatano	Waseda University / RIKEN
27. Takashi Imaizumi	Waseda University / RIKEN
28. Koki Imanishi	Waseda University / RIKEN
29. Dieter Jaksch	University of Hamburg
30. Tobias Kaltenmark	University of Tübingen
31. Syuntaro Kanai	Kyoto University
32. Takumi Kashimoto	Kyoto University
33. Yuki Kawamura	Kyoto University
34. Daiki Kawasaki	Kindai University
35. Omar Kecir	Institute for Molecular Science (IMS)
36. Hiroki Kuji	Tokyo University of Science
37. Masaya Kunimi	Tokyo University of Science
38. Hikaru Kuriki	Tokyo University of Science
39. Toshi Kusano	Kyoto University
40. Thu Le	AIST
41. Igor Lesanovsky	University of Tübingen

42.	Valentin Magro	Institute for Molecular Science (IMS)
43.	Akane Makino	RIKEN
44.	Takuya Matsubara	Institute for Molecular Science (IMS)
45.	Jorge Mauricio	Institute for Molecular Science (IMS)
46.	Keegan McGehee	RIKEN
47.	Florian Meinert	University of Stuttgart
48.	Tiago Mendes-Santos	Pasqal
49.	Shinnosuke Miki	Waseda University / RIKEN
50.	Shogo Moda	Kyoto University
51.	Kodai Morita	Waseda University / RIKEN
52.	Johannes Mögerle	University of Stuttgart
53.	Chris Nill	University of Tübingen
54.	Harumu Odagawa	Institute for Molecular Science (IMS)
55.	Kenji Ohmori	Institute for Molecular Science (IMS)
56.	Takato Oki	Tokyo University of Science
57.	Shahram Panahiyan	University of Hamburg
58.	Tilman Pfau	University of Stuttgart
59.	Thomas Pohl	Vienna University of Technology
60.	Gebrat Porta San Miguel	University of Hamburg
61.	Lucas Ruffloch	RIKEN
62.	Achim Scholz	University of Stuttgart
63.	Miyu Shimizu	Tokyo University of Science
64.	Seiya Shinkawa	Institute for Molecular Science (IMS)
65.	Christian Sommer	Institute for Molecular Science (IMS)
66.	Kritsana Srakaew	Institute for Molecular Science (IMS)
67.	Xintong Su	University of Tübingen
68.	Shijia Sun	LMU Munich / MPQ
69.	Yuhi Tamagawa	Waseda University / RIKEN
70.	Kaima Tanabe	Tokyo University of Science
71.	Fabian Thielemann	University of Stuttgart
72.	Takafumi Tomita	Institute for Molecular Science (IMS)
73.	Moritz von Eimern	University of Tübingen / IMS
74.	Genki Watanabe	Institute for Molecular Science (IMS)
75.	Matthias Weidemüller	Heidelberg University
76.	Roman Wussler	University of Tübingen
77.	Yoshihiro Yabuuchi	Kindai University
78.	Rei Yokoyama	Kyoto University
79.	Takaharu Yoshida	Tokyo University of Science
80.	Torsten Zache	University of Innsbruck
81.	Johannes Zeiher	LMU Munich / MPQ

Useful Information

Talks and poster sessions will be held from Monday to Wednesday in the **Alte Aula** (Münzgasse 30, 72070 Tübingen) and on Thursday in seminar room **D4A19, Auf der Morgenstelle 14, 72076 Tübingen**. The **lab tours** on Thursday will also take place at Auf der Morgenstelle 14.

Coffee breaks and lunches will be served in the same buildings, just in front of the lecture halls.

For the **excursion**, we will travel by bus to **Hohenzollern Castle** near Hechingen. After a short introduction, you can explore the castle on a self-guided tour; audio guides will be available. If you would rather go for a hike, you can climb the “Zeller Horn”, which offers a fantastic view of the castle and the surrounding area.

The **conference dinner** will be at “Hofgut Domäne”, just below the castle. To get to the restaurant, you can either walk down or take the shuttle bus. Hikers who made it up the Zeller Horn will find it an easy walk from there to the restaurant.

Where are all these places?

Below are the locations as Plus Codes. Click on a code, or enter it in the search field of Google Maps or <https://plus.codes>.

- Alte Aula: G394+W7R Tübingen
- Auf der Morgenstelle 14: G2QP+2Q8 Tübingen
- Ibis Hotel: G386+PHR Tübingen
- Hotel Domizil: G395+8QH Tübingen
- Hohenzollern Castle: 8FWC8XF8+CXM
- Hofgut Domäne: 8FWC8XP2+C44
- Zeller Horn: 8FWC8X7J+228

Bus information to reach “Auf der Morgenstelle 14” (google maps knows the buses in Tübingen):

- The most convenient stop to enter the bus is “Neckarbrücke” (bus heading north): G395+P69 Tübingen
- Get out at “BG Unfallklinik”: G2MP+MGR Tübingen