

Parallel sessions: Theory

Friday 24 January 2025 14:00 (2h 30m)

Potential topics to discuss:

o Optimization: static calculations (phase transition) (chairperson: Name)

Topic: Beyond VQE(?); Martin's "scaling" ansatz; Quantum subspace expansion (Laurin, Julian)

o Dynamics (chairperson: Stefan K. and Jad H.)

Topic: Scattering: how large can we scale? Can we reach utility scale?

o What else than Trotter? QDRIFT inspired ansatz, (chairperson: Alessandro R.).

o Scaling from 1D+1 to 2D+1 and possibly 3D+1 (HW dependences) –near-term vs fault-tolerant (what kind of chip topology will be needed?) (chairperson: Uwe W. and Karl J. and Arianna C.)

o Possible new research directions (all). Consolidate and/or start working teams working around selected topics.