

Scaling quantum computing with trapped ions

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This colloquium will be held **ONLINE**.

Registration: https://krs2.riken.jp/m/rqc_registration_form

Quantum computing promises the possibility to solve problems inaccessible with classical computers, but only in a limit in which qubit numbers are considerably larger than those under control today. Trapped-ions are among the leading approaches, featuring high fidelity operations and long coherence time. I will illustrate approaches to scaling this approach based on our own work, including the use of modular trap architectures, integrated optics to deliver light to ions for high-fidelity gates, and novel approaches to trapping for facilitating chip-based approaches.