

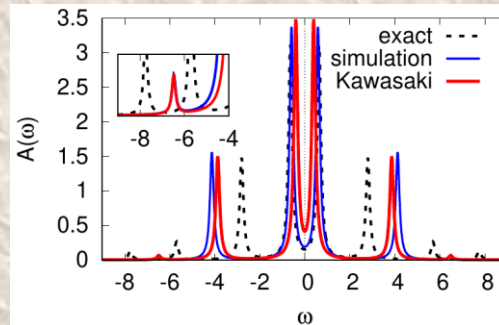
理化学研究所では物理学、化学、生命科学、人文学、情報科学、計算科学といった多様な分野の研究者約100名がibm\_kawasakiのアカウントを取得しており、量子コンピュータ実機を用いた研究の様々な可能性を追究しています。

## 最近の発表論文

**Dynamical mean-field theory for the Hubbard-Holstein model on a quantum device**

Steffen Backes *et al.*

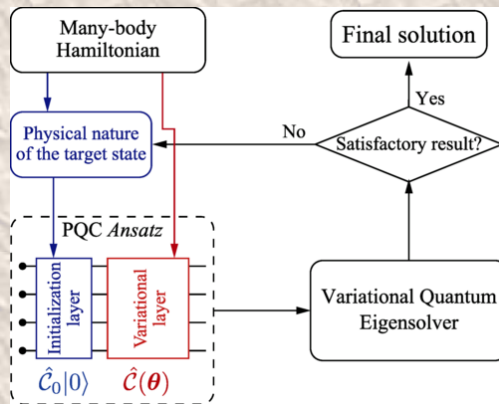
Phys. Rev. B **107**, 165155 (2023)



**Efficient variational quantum circuit structure for correlated topological phases**

Rong-Yang Sun *et al.*

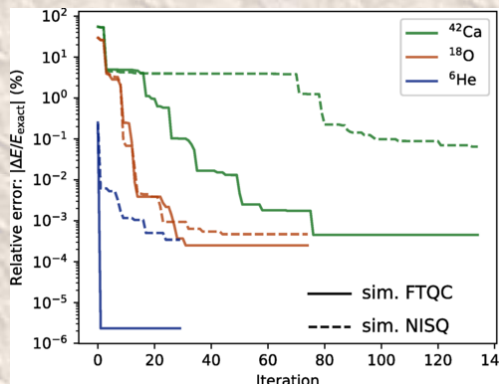
Phys. Rev. B **108**, 075127 (2023)



**Accurate and precise quantum computation of valence two-neutron systems**

Sota Yoshida *et al.*

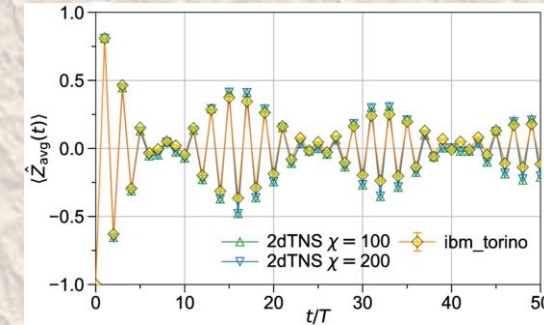
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**Unveiling clean two-dimensional discrete time quasicrystals on a digital quantum computer**

Kazuya Shinjo *et al.*

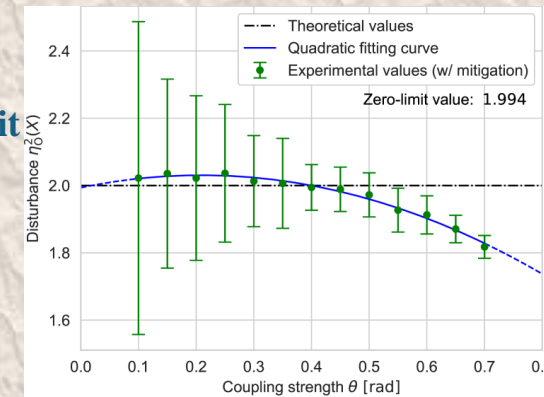
arXiv: 2403.16718



**Disturbance evaluation circuit in quantum measurement**

Haruki Emori *et al.*

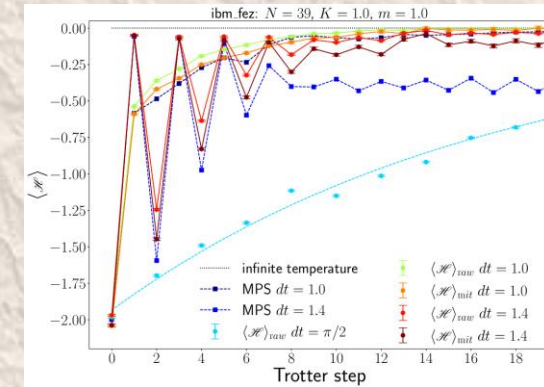
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**Floquet prethermalization of  $Z_2$  lattice gauge theory on superconducting qubits**

Tomoya Hayata *et al.*

arXiv: 2408.10079



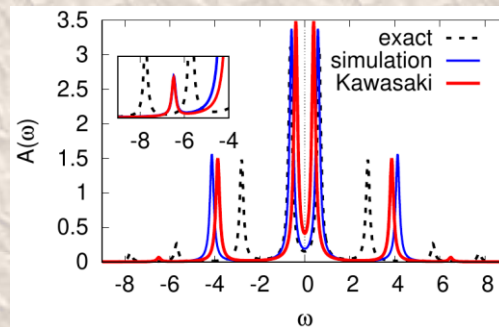
At RIKEN, about 100 researchers in diverse fields such as physics, chemistry, life sciences, humanities, information sciences, and computational sciences have accounts to use [ibm\\_kawasaki](#) and are pursuing various possibilities for research using actual quantum computers.

## Recent Papers

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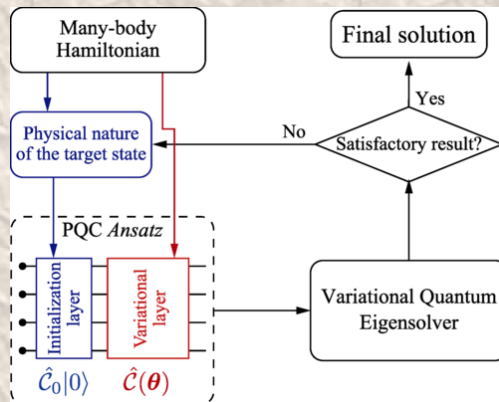
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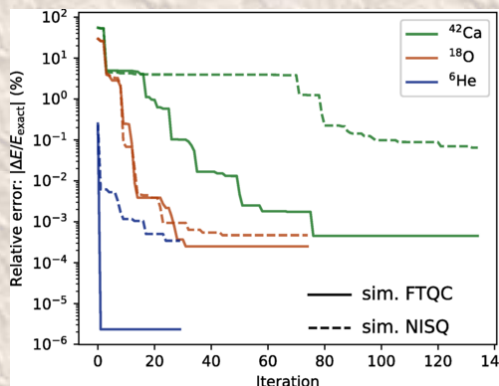
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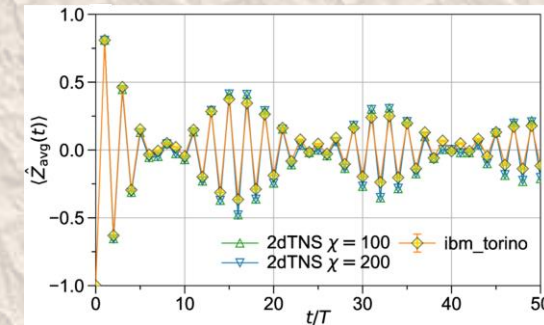
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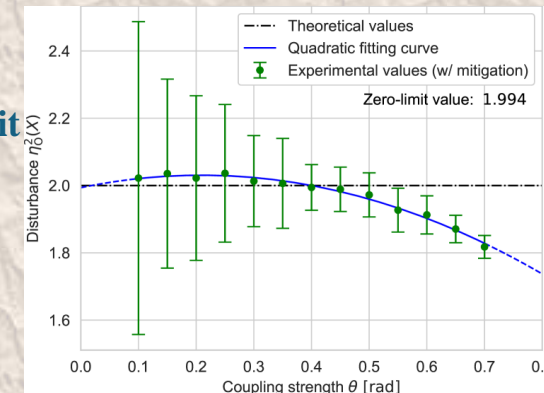
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