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Perturbation theory of KMS states

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A KMS state is a state which represents equilibrium state corresponding to some Hamiltonian. When Hamiltonian is perturbed, a KMS state also gets perturbed. The traditional perturbation theory is due to Araki. Araki's representation of perturbed KMS state uses unbounded operator. Recently, Hastings introduced new kind of representation of perturbed KMS states using bounded operators in finite systems. His theory can be extended to infinite systems.

This is a collaboration with Shun Ejima.

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