

# Quantum Falaco Solitons

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Quantum soliton showing one-dimensional interaction system is drawing attention as macroscopic topological defect. It is classically realized as two swirl vortices connected with a water vortex string. In this talk, we discuss the generation of quantum Falaco soliton in a superconducting thin film and prove it as a one-dimensional interaction system. In order to create and manipulate Falaco solitons, we adopted a vector-field MFM. Their temperature and field dependence show a linear potential in distance. Our results will provide a venue to understand 1d confinement force.