

# Exact correlation functions of quantum integrable circuits from algebraic geometry

*Wednesday 2 October 2024 09:30 (1 hour)*

In this talk, I will discuss some exact results on correlation functions of strings of spin operators for an integrable quantum circuits. These observables can be used for error calibration and mitigation of quantum simulation platforms. In the first part, I will discuss the method for the computation which includes algebraic Bethe ansatz and computational algebraic geometry. In the second part, I will present the exact results in both real space and Fourier space and discuss their physical implications.

**Primary author:** JIANG, Yunfeng (Shing-Tung Yau Center and School of Physics, Southeast University)

**Presenter:** JIANG, Yunfeng (Shing-Tung Yau Center and School of Physics, Southeast University)