Quantum computation of magnon spectra[1] AKHIL FRANCIS,
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quantum computation of two-point correlation functions for a Heisenberg spin chain.
Using the IBM Q 20 Tokyo machine, we find that for two sites the correlation functions produce the exact results reliably. For four sites, results from the quantum
computer are noisy due to readout errors and decoherence. Nevertheless, the correlation functions retain the correct spectral information. This is illustrated in the
frequency domain by accurately extracting the magnon energies from peaks in the
spectral function.

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