

ML for the QCD spectrum?

○ How can we use ML techniques to help us investigate the QCD spectrum?

1. Help with technical limitations
2. Accelerate slow processes
3. Assist with interpretation of result

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1. Help with technical limitations

- ▶ Construct better interpolating operators?
- ▶ Tackle excited state contamination. Fits to excited states?
- ▶ Contour deformation for the signal-to-noise problem in baryon correlators

ML for the QCD spectrum?

○ How can we use ML techniques to help us investigate the QCD spectrum?

2. Accelerate slow processes

- ▶ Accelerate Wick contractions
- ▶ Emulate costly parts of the analysis

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3. Assist with interpretation of result

- ▶ Scattering amplitudes with Luscher method. Analysis? Analytic continuation?
- ▶ EFTs with variational method. Wave functions based of NNs?
- ▶ Spectral function reconstruction. Properties of bound states?