JULY 26-30 2021, ZOOM/GATHER@MIT

Contribution ID: **537**   Type: **Oral presentation**

Connecting Matrix Elements to Multi-Hadron Form-Factors

Tuesday, 27 July 2021 21:00 (15 minutes)

We discuss developments in calculating multi-hadron form-factors and transition processes via lattice QCD. Our primary tools are finite-volume scaling relations, which map spectra and matrix elements to the corresponding multi-hadron infinite-volume amplitudes. We focus on two hadron processes probed by an external current, and provide various checks on the finite-volume formalism in the limiting cases of perturbative interactions and systems forming a bound state. By studying model-independent properties of the infinite-volume amplitudes, we are able to rigorously define form-factors of resonances.

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Session Classification: Hadron Spectroscopy and Interactions

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