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# Energy Correlators, Heavy Flavor, and Precision QCD

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Understanding the behaviour of heavy quarks is important for painting a coherent picture of QCD, both formally and phenomenologically, and the upcoming runs at the LHC will provide unprecedented statistics for precision measurements related to heavy flavor. A natural object for initiating these studies are Energy Correlators, which measure correlations of energy flow at collider experiments. These observables fall into a broader class of so called "jet substructure" observables which have been successful in broadening our understanding of fundamental physics and QCD. The aformentioned correlators are distinguished in their ability to resolve scales associated with heavy quarks along with those of confinement. In this talk, I will introduce a variety of new correlator based observables, specifically the two and three point heavy energy correlators. These observables provide new insights into jet substructure, specifically allowing for direct access to hadronization and intrinsic mass effects before confinement. This opens the door to a new class of precision, heavy flavored based measurements at the LHC and beyond.

**Primary author:**   CRAFT, Evan (Yale University)

**Co-authors:**   MECAJ, Bianka (Yale University);  MOULT, Ian (Yale University);  LEE, Kyle (MIT);  GONZALEZ, Mark (Yale University)

**Presenter:**   CRAFT, Evan (Yale University)

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