

# KKMC-hh for Precision EW Phenomenology at the LHC

*Tuesday, July 28, 2020 7:05 PM (25 minutes)*

We describe the program KKMC-hh, which calculates Z boson processes in hadronic collisions using coherent exclusive exponentiation (CEEX) with exact second-order photonic corrections at next-to-leading log and first-order weak vertex corrections, including initial and final state photonic radiation and initial-final interference. We describe current applications to precision forward-backward asymmetry calculations for the measurement of the Weinberg angle at the LHC and upgrades in progress for use with an NLO QCD shower.

## Secondary track (number)

**Primary author:** YOST, Scott Alan (The Citadel - The Military College of South Carolina (US))

**Co-authors:** JADACH, Staszek (Polish Academy of Sciences (PL)); WAS, Zbigniew Andrzej (Polish Academy of Sciences (PL)); WARD, Bennie (Baylor University (US))

**Presenter:** YOST, Scott Alan (The Citadel - The Military College of South Carolina (US))

**Session Classification:** Top Quark and Electroweak Physics

**Track Classification:** 04. Top Quark and Electroweak Physics