



Contribution ID: 55

Type: **Parallel session**

Higgs decay to quarkonia and the Yukawa couplings

Tuesday, 28 November 2023 10:00 (15 minutes)

We propose to test the charm (and bottom) quark Yukawa coupling at the HL-LHC and future hadron colliders with the Higgs boson decay to quarkonia via the fragmentation mechanism. Using the non-relativistic quantum chromodynamics (NRQCD), we study the quarkonia production via SM Higgs decay through both the color-singlet and color-octet channels. Our study provides quantitative statements on the potential of determining the charm (and bottom) quark Yukawa coupling at hadron colliders.

You are

non-PhD student

Primary author: Dr MA, Yang (INFN-Bologna)

Co-authors: Prof. ALISON, John (Carnegie Mellon University); HAN, Tao (Univ. of Pittsburgh & TsingHua University); Mr LIU, Chuyuan (Carnegie Mellon University); Dr TAN, Xiaoze (Fudan University)

Presenter: Dr MA, Yang (INFN-Bologna)

Session Classification: Parallel: Precision & Yukawas

Track Classification: Precision & Yukawas