

ICHEP2012



Contribution ID: 83

Type: **Parallel Sessions**

## **NRQCD matching coefficient at next-to-next-to-next-to-leading order**

*Thursday, July 5, 2012 10:15 AM (15 minutes)*

We present new results for the matching coefficient between the QCD and the non-relativistic QCD (NRQCD) vector current. The matching coefficient constitutes one of the missing ingredients for a complete NNNLO theory prediction of top-quark pair production at a future linear collider. Furthermore, the matching coefficient is an important building block for the analysis of heavy quarkonia, which will allow for the precise determination of the bottom-quark mass from sum rules.

**Primary author:** Dr MARQUARD, Peter (KIT (DE))

**Presenter:** Dr MARQUARD, Peter (KIT (DE))

**Session Classification:** TR4 - Top Quark Physics

**Track Classification:** Track 4 - Top Quark Physics