



Contribution ID: 11

Type: **talk**

NRQCD matching coefficients with two mass scales

Thursday, June 9, 2022 10:00 AM (30 minutes)

NRQCD is a non-relativistic effective theory used, for example, to describe QCD bound states such as the $\Upsilon(1S)$ meson. The matching of the effective theory NRQCD to the full theory QCD requires the calculation of matching coefficients. One of these matching coefficients, the matching coefficient of the vector current, plays an important role in the calculation of the decay width of the $\Upsilon(1S)$ meson. The talk will focus on the calculation of this coefficient including two mass scales up to NNLO. Also the calculation of the scalar, pseudoscalar and axialvector current matching coefficients are presented.

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Session Classification: Young scientists talks