

## HP2.3rd - The 3rd International Workshop on High Precision for Hard Processes at the LHC

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# Single-cut spinor integration and tadpole coefficients

*Tuesday 14 September 2010 15:15 (30 minutes)*

I report on work done in collaboration with Ruth Britto. I will present the extension of the spinor integration formalism for one-loop amplitudes from the double-cut to the single-cut case. I will show how this technique can be applied for the computation of tadpole coefficients, which arise in a master integral expansion if massive particles circulate in the loop.

When massive particles are present in the loop, single-cut spinor integration can be used for the full reconstruction of the cut-constructible part of the one-loop amplitudes. Indeed, double (and optionally triple and quadruple) cuts fix the coefficients of box, triangle and bubble integrals but cannot determine the tadpole coefficients, which are free of cuts in physical channels.

**Primary authors:** MIRABELLA, Edoardo (Institut de Physique Théorique, CEA); BRITTO, Ruth (Institut de Physique Théorique, CEA)

**Presenter:** MIRABELLA, Edoardo (Institut de Physique Théorique, CEA)

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