

# Speeding up SM Amplitude Calculations with Chirality Flow

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Two years ago, we introduced a new method to calculate Feynman diagrams more efficiently and transparently, the Chirality-Flow formalism. In this framework, which builds on the spinor-helicity formalism, analytic, tree-level Standard Model Feynman diagrams can be written down almost immediately as a complex number, without the need for intermediate algebra. In this talk, as a proof-of-concept, I will discuss how using Chirality-Flow for massless QED makes MadGraph5\_aMC@NLO a factor 2-10 times faster for processes with up to 7 final-state particles, with increasing speed gain for higher multiplicity.

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