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### Introducing the Helicity Flow

It is well-known that the spinor-helicity method can significantly simplify the calculations of both Feynman diagrams and scattering amplitudes. In this work, we attempt to further simplify the Feynman-diagram calculation by converting the spinor-helicity method into a flow method. This is analogous to using the flow of colour for  $su(n)$  colour calculations. In many cases, helicity flow allows a one-line journey from Feynman diagram to inner products. The traditional spinor-helicity and colour-flow methods will be introduced. I will then build up our helicity-flow method, and discuss the cases of massless QED and QCD.

Date: Thursday 7 November

Time: 11am

Venue: L1, Seminar Room 107, 10 College Walk, Clayton

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