

Maximal R-symmetry violating amplitudes in type IIB superstring theory.

Wednesday 26 September 2012 14:30 (30 minutes)

Calculating scattering amplitudes in a flat background is one of the first things to learn in string theory: the subject started after all with Veneziano's amplitude. Beyond four external legs however explicit computations get prohibitively complex quickly using standard world-sheet methods. In this talk I will show how one can use on-shell super-symmetry in type IIB superstring theory to bypass the complexity and arrive at astonishingly compact answers for a particular class of amplitudes. This class violates in a precise sense the R-symmetry maximally.

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