

Ambitwistor String Theory

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I will describe a chiral infinite tension limit of the RNS superstring, known as ambitwistor string theory, which provides a powerful point of view on tree-level Yang-Mills and gravity amplitudes in arbitrary dimensions. In four dimensions, ambitwistor string theory gives rise to new formulae for tree-level Yang-Mills and gravity amplitudes with arbitrary amounts of supersymmetry, which are supported on the scattering equations and are much simpler than previous formulae. Ambitwistor string theory also provides new insights into soft theorems for photons and gravitons and their relationship to extended BMS symmetries.

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