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Title:

“Unitarity techniques for two dimensional S-matrices”

Abstract:

Unitarity techniques have proven to be a powerful tool for the computation of scattering amplitudes in three and four dimensions. Here the same method is applied to several massive two-dimensional models, including the world-sheet $AdS_5 \times S^5$ superstring, to compute $2 \rightarrow 2$ scattering S-matrices at one loop from tree level amplitudes. Evidence is found for a hidden relation with the integrability of the model.