MAP-Fis Research Conference



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Bootstrapping U(N) S-matrices

Friday 11 October 2024 11:50 (20 minutes)

We analyze two-dimensional scattering matrices for particles transforming in the fundamental representation of the U(N) global symmetry group, assuming no bound states. In particular, we use the S-matrix bootstrap formalism to construct the allowed space of S-matrices for such processes, which in turn need to be consistent with the usual conditions of unitarity, crossing and analyticity. Analogously to the O(N) case studied in 1909.06495, we find that certain points at the boundary of this surface correspond to integrable models.

Which topic best fits your talk?

High Energy Physics and Cosmology

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