NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics

Informal Discussion on:

An Algebraic Approach to Color-Kinematic Duality and Formulations of Yang-Mills Amplitudes

Led by:

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Namm, Room 823

Abstract

The duality discovered by Bern, Carrasco and Johansson suggests an algebraic-like structure of Yang-Mills amplitudes that is unforseen from the Lagrangian perspective. This provides a promising mechanism for the possible UV finiteness of N=8 supergravity theory. In particular, a new version of the KLT relation was conjectured based on the duality, and has been recently verified at 4-pts up to four loops. I shall discuss how the building blocks in the duality can be constructed, as well as a few new formulations also suggested by the duality as counterparts of the familiar formulations of Yang-Mills amplitudes.
Based on arXiv:1212.6168 and 1105.3503.