

Dualizations for the spin two fields

Monday, 24 October 2022 19:00 (5 minutes)

We propose higher-derivative dual representation for the massless spin two theory by the third-rank tensor with hook Young diagram. Using the general procedure for including Stueckelberg fields with reducible gauge symmetry, we demonstrate that we can switch between different dual formulations by the choice of gauge-fixing conditions in the Stueckelberg action. For the massless spin two field one of the gauges reproduced linearized Einstein gravity in terms of symmetric second-rank tensors, while another one leads to the third-order equations for hook-type symmetry tensor. We demonstrate that similar dual formulations exist for the fields of various spin, e.g for the massive spin two fields.

Primary authors: ABAKUMOVA, Victoria (Tomsk State University); Prof. LYAKHOVICH, Simon

Presenter: ABAKUMOVA, Victoria (Tomsk State University)

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