

Spinning Boundary Correlators from AdS₄ Twistors

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We develop a twistor-space framework to compute boundary correlators via a boundary limit of nested Penrose transforms in (A)dS₄. Starting from correlators of (anti-)self-dual bulk fields, the boundary limit reproduces the correlators of the dual conserved currents; we demonstrate this explicitly for two- and three-point functions. The two-point correlator is rendered finite by working in Euclidean signature. At three points, we obtain compact rational twistor-space representatives obeying a double-copy relation, thereby clarifying the twistor-space origin of the results in Baumann et al. (2024). We further extend the analysis to non-conserved currents with integer conformal dimension, dual to massive bulk fields, as well as to the free scalar.

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