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Rotating metrics from scattering amplitudes in arbitrary dimensions.

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Within the framework of recovering general relativity from scattering amplitudes, it is possible to compute the metric induced by the most generic rotating spherically-symmetric matter configuration at quadrupole order by considering stationary massive spin-1 particles emitting gravitons. This approach leads to a natural definition of a multipole expansion in any dimension and the observation of a new quadrupole moment in the space-part of the metric, allowing us to investigate the black hole-particle correspondence in dimensions greater than four.

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