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SUSY in the sky with gravitons

Tuesday 8 February 2022 20:40 (20 minutes)

The worldline quantum field theory (WQFT) formalism describes classical gravitational observables including spin effects up to quadratic order in the multipole expansion, and including finite-size corrections. The theory enjoys an N=2 worldline supersymmetry between spin and position degrees of freedom. Recently we have used the WQFT to compute gravitational observables at third Post-Minkowskian (PM) order including quadratic-in-spin effects and radiation-reaction effects. I will discuss this spinning WQFT and our recent 3PM results. I will also consider how our approach is related to other approaches currently used in the PM expansion.

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Track Classification: Student Talks