Spin and Quadrupole Corrections to EMRIs

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Extreme mass ratio inspirals(EMRIs) are important to gravitational observations. We present analytic results of gravitational waveforms from EMRIs around near extremal Kerr black holes by including spin and quadrupole corrections in the framework of Mathisson-Papapetrou-Dixon formalism. The observational frequency and critical angular momentum are modified by the spin and quadrupole effects. We also show that there is an enhancement factor for the waveform when the angular momentum becomes critical.