

Some aspects of the three-body problem in General Relativity

Relativistic three-body systems could be observed in the future interferometer LISA. In this talk, I will illustrate some striking properties of three-body systems in General Relativity which do not have an equivalent in the simpler two-body problem. While the Kozai-Lidov oscillations typical of the Newtonian three-body problem are suppressed in the relativistic regime, there exists some resonances which could drastically modify gravitational wave emission. Finally, I will show how gravitational waves of two binary systems can interfere, thus modifying the quadrupole energy emission rate.

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