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Gravity in quantum systems: lessons from spectroscopy

Monday 11 June 2018 11:45 (15 minutes)

The goal of this project is to make progress in quantum gravity by studying gravity in quantum mechanical systems at atomic scales. We compare approaches to the generation of gravitational waves and gravitons from quantum mechanical systems such as the ammonia molecule. The approach is guided by the strong analogy between classical electromagnetism and classical general relativity. We evaluate the semi-classical Einstein equations based upon their predictions for gravitational wave generation.

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