

Abstract Submitted
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The Memory Effect of Particle Scattering in Odd Spacetime Dimensions GAUTAM SATISHCHANDRAN, ROBERT WALD, Univ of Chicago
— The gravitational memory effect is the permanent displacement of test particles due to the passage of gravitational waves. We investigate the memory effect for linearized perturbations off of Minkowski space in odd spacetime dimension d by examining the effects of gravitational radiation from point particle scattering. We find that there is no gravitational memory effect in all odd dimensions. Our results are further elucidated by analyzing the memory effect for any slowly moving source of compact spatial support in odd dimensions.

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