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The Black Hole Graviton Laser TIME BOMB

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Abstract

A graviton laser works, in principle, by the stimulated emission of coherent gravitons from a lasing medium. For significant amplification, we must have a very long path length and/or very high densities. Black holes and the existence of weakly interacting sub-eV dark matter particles (WISPs) solve both of these obstacles. Orbiting trajectories for massless particles around black holes are well understood and allow for arbitrarily long graviton path lengths. Superradiance from Kerr black holes of WISPs can provide the sufficiently high density. This suggests that black holes can act as efficient graviton lasers. Thus directed graviton laser beams have been emitted since the beginning of the universe and give rise to new sources of gravitational wave signals. To be in the path of particularly harmfully amplified graviton death rays will not be pleasant.

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