

Abstract Submitted
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Particle Production in a Gravitational Wave Background

PATRICK MCDOUGALL, Fresno State — In this talk we discuss the possibility of particle production by a background gravitational wave. This process can be related to the Schwinger effect pair production of electrons/positrons in a background uniform electric field. In this case the electrons/positrons are replaced by massless scalar photons and the electric field is replaced by a gravitational wave background. This process may lead to the observable attenuation of gravitational waves. We conclude by discussing two possible consequences of this process.

Patrick McDougall
Fresno State

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