

Abstract Submitted
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**Approximating the Production Rate for Neutrino-Induced Pair-
Production in Intense Magnetic Fields¹** JORDAN RUSSELL, Hendrix College

— We consider the production of electron-positron pairs by neutrinos in an intense magnetic field. Calculating the total production rate of these pairs requires summing over all of the allowed Landau levels of the electron and positron for a range of incoming neutrino energies. Because of the computationally challenging nature of this summation, the focus of my research has been to institute a set of estimations and calculate the total rate over the dominant region of Landau-level space. I will present an approximate relationship for field strengths in excess of the critical field.

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