

Abstract Submitted
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Effective approximations for computing neutrino-stimulated pair production¹ LAURA JOHNSON, Hendrix College — Astrophysical phenomena can create immense magnetic fields strengths and energies. These large magnetic fields permit the process $\nu \rightarrow \nu e\bar{e}$, which is otherwise forbidden. The total production rate of this process, which involves a summation over all possible Landau levels associated with the electron and positron, is unknown. And the number of possible Landau levels increases dramatically with neutrino energy, making the summation computationally challenging. In this talk I will present some of the approximations I have found that simplify the calculation and reduce computation time.

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