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Differential Production Rates in Neutrino Induced Electron-Positron Pair Creation HANNAH MCWILLIAMS, Hendrix College — Calculation of the total rate of production for neutrino-induced electron-positron pair creation in a magnetic field requires the sum over a large number of final states. Therefore, a method of simplification or estimation is vital. I will show how the behavior of the differential production rates depends upon the conditions of the environment and the initial neutrino. From these results, the significance or insignificance of each variable can be ascertained.

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