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Magnetized Hot White Dwarfs JEFF PETERSON, Kent State University — In this work, we study the effects of temperature and strong magnetic fields for matter inside white dwarfs. We model the star interior as a relativistic free Fermi gas of electrons in weak equilibrium with Carbon nuclei and include the anomalous magnetic moment for the electrons. We find that, at low densities (in the outer regions of the star), both temperature and magnetic field effects play a role. Finally, we study consequences of fixing the entropy per particle instead of the temperature within the star.

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