Contribution ID: **53** Type: **Talk**

Hartle's slow rotation effects in magnetized white dwarfs

Friday, 12 May 2017 15:00 (30 minutes)

Slowly rotating magnetized white dwarfs are studied within the framework of general relativity using Harte's formalism. Matter inside magnetized white dwarfs is described by an equation of state of particles under the action of a constant magnetic field, which breaks the SO(3) symmetry and introduces a splitting of the pressure into one parallel and other perpendicular to the magnetic field. Our research comprises typical densities of white dwarfs and values of magnetic field below 10^{13} G -a threshold for the maximum interior magnetic field supported by white dwarfs, obtained from cylindrical metric solution in previous studies-. The effects of rotation and magnetic field combined are discussed and relevant magnitudes such as the moment of inertia, quadrupole moment and eccentricity are computed.

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Track Classification: SMFNS2017