## Sixteenth Marcel Grossmann Meeting



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Type: Invited talk in the parallel session

## Static and rotating white dwarfs at finite temperatures

Thursday, 8 July 2021 16:30 (15 minutes)

Static and uniformly rotating, cold and hot white dwarfs are investigated both in Newtonian gravity and general theory of relativity, employing the well-known Chandrasekhar equation of state. The mass-radius, mass-central density, radius-central density etc relations of stable white dwarfs with  $\mu = A/Z = 2$  and  $\mu = 56/26$  (where A is the average atomic weight and Z is the atomic charge) are constructed for different temperatures. It is shown that near the maximum mass the mass of hot rotating white dwarfs is slightly less than for cold rotating white dwarfs, though for static white dwarfs the situation is opposite.

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Session Classification: White Dwarfs, Magnetic Compact Stars, and Nuclear Astrophysics

**Track Classification:** White Dwarfs: White Dwarfs, Magnetic Compact Stars and Nuclear Astrophysics