

Contributed Talk

Splinter Education

WHITE DWARFS AS SCHOOL TOPIC

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White dwarfs are the remnants at the end of a low-mass star's live. They serve as important observational verifications for theories of stellar evolution and standard candles for modern cosmology. However, understanding their inner structure requires both classical and quantum physics. We investigate Chandrasekhar's model for complete electron degeneration and show that white dwarfs provide a tremendous opportunity to implement topics like quantum statistics and fluid dynamics into high school education. Furthermore we discuss pedagogical and didactic implications for teachers and students.