

Abstract Submitted
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Who First Discovered the Mass Limit of a Degenerate Star?

MICHAEL NAUENBERG, University of California, Santa Cruz — The discovery of a limit for the mass of white dwarfs is attributed solely to S. Chandrasekhar, whose name is attached to this limit. But as it is often the case, the history of this discovery is more nuanced. Actually, Chandrasekhar was anticipated by E.C. Stoner, a physicist at Leeds, who also played a crucial role in Pauli's discovery of the exclusion principle. Evidently Stoner's interest in degenerate stars came from Fowler's application of the the exclusion principle to the solution of the puzzle concerning the extremely high density of white dwarfs which could not be explained by classical physics. Although Stoner wrote several brilliant papers on the subject, and Chandrasekhar used Stoner's relativistic equation of state for his later calculation, Stoner's contribution have been forgotten now.

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