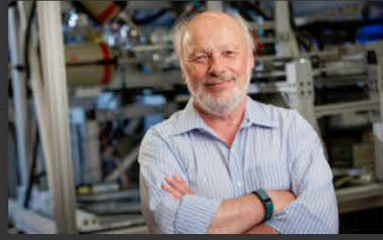


Tuesday

April 13, 2021

3:45 pm (Zoom mtg)



Carbon Fusion in Late Stellar Evolution

Abstract:

The talk will provide an overview of the role of the $^{12}\text{C}+^{12}\text{C}$ fusion reaction in stellar environments, from first star generation to recently observed superbursts. The rate itself is highly uncertain at the characteristic stellar temperature conditions and relies on theoretical extrapolation. The main uncertainties are in the prediction of the sub-Coulomb behavior of the fusion cross section as well as in the decay channel branching ratio of the highly excited ^{24}Mg compound system. New initiatives to improve the present data and reduce the uncertainties in the extrapolation will be discussed.

**CYCLOTRON
COLLOQUIUM**

—

**Michael
Wiescher**

—

**Freimann
Professor of
Physics**

—

**University of
Notre Dame**

—

**CYCLOTRON
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