Sixteenth Marcel Grossmann Meeting



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Type Ia Supernova Explosions and their Nucleosynthesis: Constraints on Progenitors

Monday, 5 July 2021 17:35 (20 minutes)

What the progenitors of Type Ia supernovae (SNe Ia) are, whether they are Chandrasekhar mass or sub-Chandrasekhar mass white dwarfs, has been matter of debate for decades. Various observational hints are supporting both models as the main progenitor. In this talk, I will review the explosion physics and their chemical abundance patterns of SNe Ia from these two classes of progenitors. I will discuss how the observational data of SNe Ia, their remnants, the Milky Way Galaxy and galactic clusters can help us to determine the essential features where numerical models of SNe Ia need to match.

Primary authors: LEUNG, Shing-Chi (TAPIR, Caltech); Prof. NOMOTO, Ken'ichi (Kavli IPMU, The University

of Tokyo)

Presenter: LEUNG, Shing-Chi (TAPIR, Caltech)Session Classification: White Dwarf Explosions

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