



Seminar/Talk

Supernova properties across cosmic history and their implications to massive star evolution

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Host: Astronomers

Supernovae play essential roles in cosmic history. They provide metals and energies to the surroundings, driving the chemical and dynamical evolution of the Universe. Among various types of supernovae, core-collapse supernovae from massive stars start to appear shortly after the formation of the first stars in the primordial Universe. Thus, understanding their properties throughout cosmic history is essential to uncover the evolution of the Universe. In this talk, I will first discuss general properties of core-collapse supernovae in the local Universe that are revealed by extensive optical transient surveys in the last decade. Then, I will introduce the recent discoveries of high-redshift core-collapse supernovae at high redshifts by JWST and discuss the possible evolution of core-collapse supernova properties over time. I will discuss the implications of the evolution of core-collapse supernova properties to massive star evolution across cosmic history.

Thursday, October 29, 2026 11:00am - 12:00pm

Heinzel Seminar Room, Office Building West



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