

SISTER SUPERNOVAE

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It is not everyday that a peculiar Type-Ia supernova is detected in a nearby, low-dust elliptical galaxy. It is an even rarer event when another Type-Ia supernova is found in the same galaxy. Here, we present a detailed analysis of SN2008Q, a Type-Ia supernova discovered in the same galaxy as the peculiar SN2000cx (also Type-Ia) eight years beforehand. We observe this companion over a period of nearly two years with the combined data from five telescopes. We analyze the light from ultraviolet bands to 8-microns in the infrared, comparing the temporal evolution to that of SN2000cx along the way. Key similarities between the two supernovae are highlighted, while surprising differences are noted, especially in the poorly-understood cooling mechanisms of late-time emission. Finally, positron and photon trapping simulations are discussed in context of the new data, underlining the need for new dynamic radiation models for late epochs.

Astrophysics
Seminar

All interested
persons are
cordially
invited to
attend.