

Abstract Submitted
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Supernova Cosmology and Wavelet Decomposition¹ ANDREW WAGERS, LIFAN WANG, Texas A&M University, STEVE ASZTALOS, Lawrence Livermore National Lab, and Lawrence Berkeley National Lab — The acceleration of the universe is a very recent development in the field of cosmology. One of the main ways of probing the dark energy that is believed to be causing this accelerations is by studying the properties of type Ia supernovae, namely their redshift and distance. The goal of this work s to build on current supernovae template spectra using the á trous wavelet decomposition. After normalizing the results specific spectral features of several different supernovae are compared. Several of these features have a well defined evolution over the course of the explosion. Relationships between stretch and the spectral index can be found and then used to construct new supernovae template spectra.

¹Some of this work was done for NSSI program and PAT Directorate at LLNL.

Andrew Wagers
Texas A&M University

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