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Supernovae, the Accelerating Cosmos, and Dark Energy

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Abstract. Type Ia supernovae remain one of Astronomy's most precise tools for measuring distances in the Universe. I describe the cosmological application of these stellar explosions, and chronicle how they were used to discover an accelerating Universe in 1998 - an observation which is most simply explained if more than 70 % of the Universe is made up of some previously undetected form of 'Dark Energy'. Over the intervening 13 years, a variety of experiments have been completed, and even more proposed to better constrain the source of the acceleration. I review the range of experiments, describing the current state of our understanding of the observed acceleration, and speculate about future progress in understanding Dark Energy.

Text of presentation not available.