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Cosomolgy using Type Ia SNe from the Supernova Legacy Survey

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The Supernova Legacy Survey (SNLS) is a five-year program which will use around 700 high-redshift Type Ia Supernovae (SNe Ia) to constrain the average equation-of-state of dark energy, w . The survey uses griz rolling light-curves sampled every 3-4 days in dark or gray time, with SN types and redshifts determined from follow-up spectroscopy using Gemini, the VLT, and Keck telescopes. The first results from the survey indicate that in a flat universe $\Omega_{\text{Matter}}=0.263 \pm 0.042$, and $w=-1.02 \pm 0.09$ (stat) when combined with the constraint from baryon acoustic oscillations. We give an update on the current status of the survey, including evidence that the rates and properties of SNe Ia vary as a function of their progenitor stellar population. Using a two-component model, we constrain the expected evolution of average SN Ia properties with redshift and place limits on progenitor models.