Figures for Use in Presentations

Ω_m-Ω_Λ
68%, 95%, and 99.7% constraints on Ω_m and Ω_Λ obtained from CMB (orange), BAO (green), and the Union Compilation (blue).

Ω_m-w
68%, 95%, and 99.7% constraints on Ω_m and w obtained from CMB (orange), BAO (green), and the Union Compilation (blue).

Binned w
68% constraints on $w(z)$ obtained from CMB, BAO, and the Union Compilation. w is constant over each bin. Note the poor constraints on $w(z > 1)$.

Binned ρ
68% constraints on $\rho(z)$ obtained from CMB, BAO, and the Union Compilation. ρ is constant over each bin.

Binned Hubble Diagram and Residuals
Hubble Diagrams of Union Sample constructed with selection cuts and outlier rejection. Each sample is independently binned in redshift bins of 0.01. The x-axis is sqrt(redshift).

Sample Construction
The samples at a glance. Left to right:

- Hubble Diagrams and residuals binned in redshift (using bins of 0.01). The x-axis is sqrt(redshift).
- Unbinned residuals
- Histogram of resdiduals
- Pull vs. redshift
- Histogram of pulls with overplotted gaussian of unit width
- Supernova fitted color vs. redshift
- Supernova fitted color error vs. redshift

Sample Diagnostics
Sample summaries at a glance. Left to right:

- Systematic dispersion (filled) and RMS of residuals (open) with 68% confidence limits
- Variance-Weighted-Mean of sample residual and 68% limits
- Best-fit slope (d(mag)/dz) of residuals and 68% limits

Cosmology Tables-- Data to Perform Your Own Fits

Union Compilation Magnitude vs. Redshift Table
An ASCII table with tab-separated columns: Supernova Name, Redshift, Distance Modulus, and Distance Modulus Error. For Union2.1, there is an additional column for the probability that the supernova was hosted by a low-mass galaxy.

Covariance Matrix
A 580 by 580 (Union2.1) or 557 by 557 (Union2) or 307 by 307 (Union1) tab-separated ASCII-format covariance matrix, available with or without systematics.

Full Table of All SNe
A latex table with columns: Supernova Name, Redshift, B-Band Magnitude, Stretch, Color, Distance Modulus, Sample, Cuts Failed (if any). Note that the Union2 version of this table is unfortunately generated with a different script M than the Union2 redshift and distance table (SCPUnion2_mu_vs_z.txt). Note also that the 2002fx was present (rather than failing the lightcurve cuts) in an early version of the Union2.1 table.

CosmoMC Code for Implementing Union Compilation
Tar file containing the above tables with CosmoMC code for obtaining a cosmology likelihood. For the Union2.1 version of the code, we use the technique in Appendix C of Amanullah et al. (2010) for eliminating the marginalization over the absolute magnitude and delta.

More Figures

Ω_m-Ω_Λ and Ω_m-w With and Without Systematics
68%, 95%, and 99.7% constraints from the Union Compilation. The filled contours show statistical constraints only; the dotted contours include systematic errors.

w_0-w_a
68%, 95%, and 99.7% constraints from the Union Compilation. The filled contours show statistical constraints only; the dotted contours include systematic errors.

Lightcurve Data

SCP HST Cluster Survey Supernova Photmetry
Table containing the photometry of the SNe Ia from the survey.

SCP High-z 01 Lightcurve Data and Filters
Tar file containing lightcurve data for six distant supernovae, as well as the relevant bandpasses. Lightcurves are in SALT format. In most cases, the bandpasses are the complete system response. For the CFH12K and FORS1 bandpasses, some steps in the system are presented separately and must be multiplied by the filters.

SNe Summary Table
pdf version of the table containing discovery information and redshifts.

Nearby 99 Lightcurves
Tar file containing lightcurve data for the nine nearby SNe. Lightcurves are in SALT format.

Nearby 99 Filters
Tar file containing filter throughputs for each filter used with the nearby sample, as well as the "Standard" UVBRI filters.

Perlmutter et al. (1999) Lightcurves
Tar file containing lightcurve data for forty two SNe from Perlmutter et al. (1999). Lightcurves are in SALT format.