CSP Update

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The Carnegie Supernova Project I (CSP I)

- Five campaigns between 2004-2009
- Follow-up optical (ugriBV) light curves obtained of
  - 123 SNe Ia (z_{median} = 0.025)
  - 5 SNe Iax, 2 Ia-csm, 2 06bt-like, 2 “super-Chandra”
  - 34 Stripped Core-Collapse SNe
  - 83 SNe II
- Near-IR (YJH) photometry obtained for the majority
- Extensive optical spectroscopy also obtained

Swope 1-m

Du Pont 2.5-m

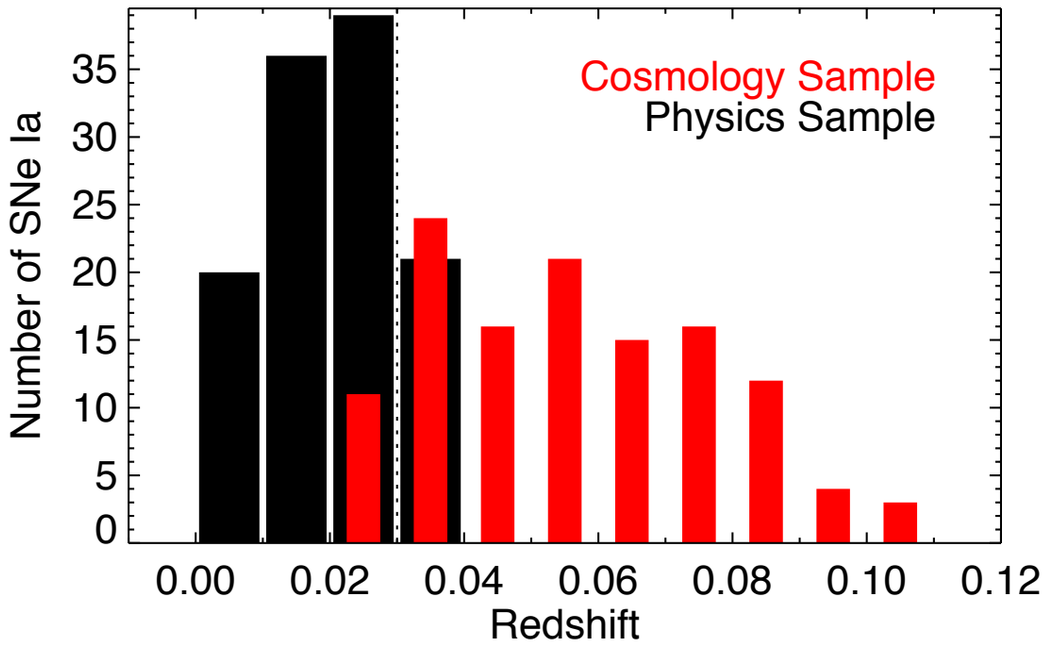
Magellan 6.5-m

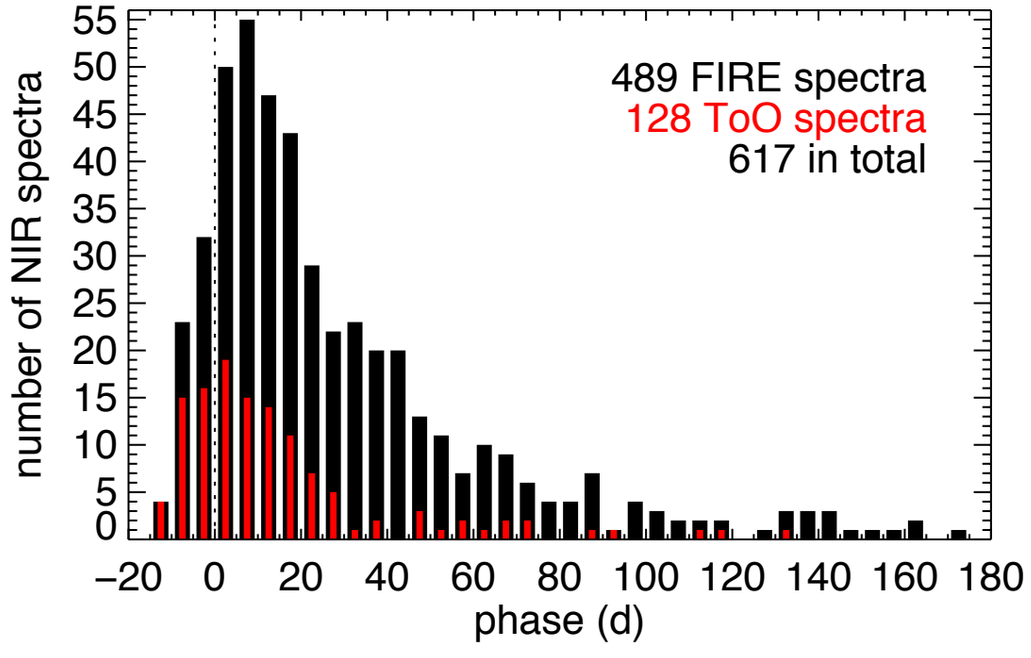
CSP I: Status

- Data Taking
  - Optical photometric calibration: Done
  - IR photometric calibration: Done
  - Optical host galaxy templates: Done
  - NIR host galaxy templates: Done
  - Optical spectra: Done
  - Redshifts: Done
- Date Reductions
  - All data reduced
  - All light curves final

The Carnegie Supernova Project II (CSP II)

- Five 9-month campaigns between 2011-2015
- Follow-up optical (ugriBV) light curves obtained of
    - 116 SNe Ia (z_{median} = 0.056) — “Cosmology Sample”
    - 111 SNe Ia (z < 0.04) — “Physics Sample”
    - ~60 SNe Ibc/II/IIn/SLSN
- Near-IR (YJH) photometry obtained of SNe Ia near maximum
- Extensive NIR spectroscopy obtained for SNe Ia in Physics Sample
- 96% of SNe Ia in Cosmology sample drawn from “blind” searches





CSP II: Status of Data

- Date Taking
  - Optical photometric calibration: Done
  - IR photometric calibration: 11 SNe still to be calibrated. We have five nights in November, and have requested an additional five nights in March 2018 to complete this.
  - Optical host galaxy templates: Done
  - NIR host galaxy templates: 1 SN Ia + 6 core-collapse SNe remaining. We have two nights on Magellan Baade in December, and have requested an additional night in March 2018 to complete this.
  - Host Redshifts: Only 10 host galaxy redshifts left to measure out of original total of 46. We have one night on Magellan Clay in November, and will use the additional night in March 2018 to complete this
- Date Reductions
  - Optical light curves: Final
  - NIR light curves: Mostly final
  - Optical spectra: Reduced
  - NIR spectra: Final reductions in progress

Publications

- 73+ publications to date
- h index = 33
- Nine papers published or accepted in 2017
  - de Jaeger et al. “A Type II Supernova Hubble Diagram from the CSP-I, SDSS-II, and SNLS Surveys”
  - Gall et al. “Two transitional type Ia supernovae located in the Fornax cluster member NGC 1404: SN 2007on and SN 2011iv”
  - Stritzinger et al. “The Carnegie Supernova Project I: photometry data release of low-redshift stripped-envelope supernovae”
  - Stritzinger et al. “The Carnegie Supernova Project I: methods to estimate host-galaxy reddening of stripped-envelope supernovae”
  - Taddia et al. “The Carnegie Supernova Project I: analysis of stripped-envelope supernova light curves”
  - Hoeflich et al. “Light and Color Curve Properties of Type Ia Supernovae: Theory Versus Observations”
  - Gutiérrez et al. “Type II supernova spectral diversity I: Observations, sample characterization and spectral line evolution”
  - Gutiérrez et al. “Type II supernova spectral diversity II: Spectroscopic and photometric correlations”
  - Krisciunas et al. “The Carnegie Supernova Project I: Third Photometry Data Release of Low-Redshift Type Ia Supernovae and Other White Dwarf Explosions"

Other News

- New Team Members
  - Chris Ashall — Postdoc at FSU
  - Zach Cano — Postdoc at Carnegie Observatories (arrives in January)
  - Jianhua Huang — Arseven/Mitchell Chair in Astrostatistics at TAMU
  - Xiaomeng Yan — Graduate student at TAMU
- Next CSP Team Meeting
  - Cook's Branch
  - Tentative dates: April 3-5, 2018