



## HET Science with SALT update

- The HET programs making progress at this are:
  - ToO program: SALT Follow-up of Supernova Discoveries
    - » *PI: J Craig Wheeler (University of Texas at Austin)*
    - » *PC: Jozsef Vinko (University of Szeged / University of Texas at Austin)*
    - » *Co-I: Robert Quimby (IPMU University of Tokyo)*
    - » *Co-I: Howie Marion (Harvard-Smithsonian Center for Astrophysics / University of Texas at Austin)*
  - Lyman Alpha emission galaxies
    - » *PI: Caryl Gronwall (The Pennsylvania State University)*



- Abstract from proposal:

*We propose target-of-opportunity observations of supernovae to obtain low dispersion spectra at appropriate time intervals, especially at early epochs. While any supernovae may be of interest, we will concentrate on Type Ia and Type Ib/c at early epochs when circumstellar matter may be revealed and on the new category of superluminous supernovae recently discovered at Texas.*

- *Use RSS in long slit mode with pg0300 grating centered at 575 nm.*

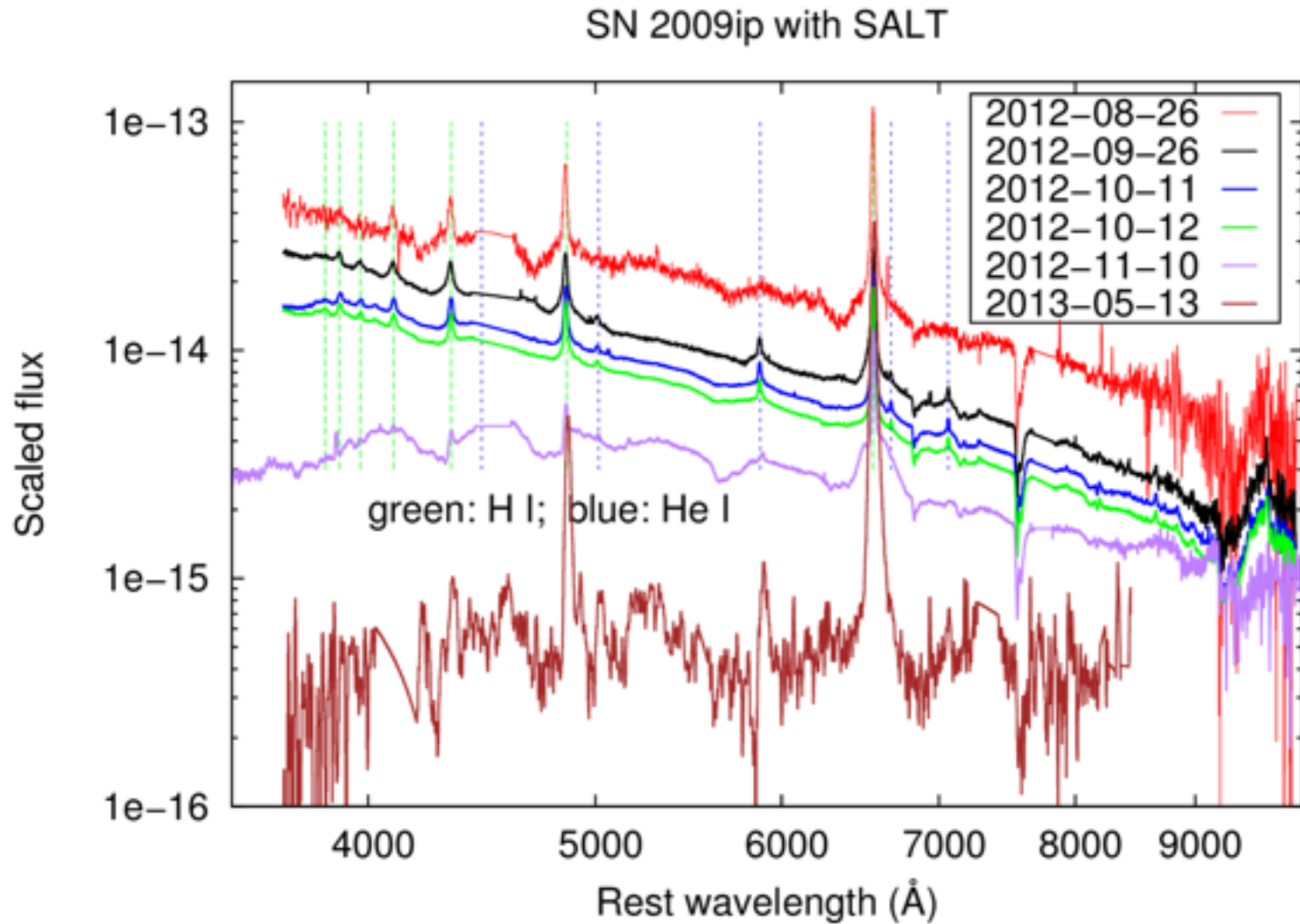
- *Best results to date are on SN2012ip*

*Started its outburst in 2012 as a supernova impostor (a giant Luminous Blue Variable star) then transformed into a controversial, supernova-like explosion. First SALT spectrum,*



# SALT Science, November 11, 2013

SALT spectra on SN 2009ip. The spectra have been shifted vertically for better visibility.





- *SN2012ip* spectrum in submitted paper by Margutti et al. (arXiv:1306.0038) *A PANCHROMATIC VIEW OF THE RESTLESS SN 2009IP REVEALS THE EXPLOSIVE EJECTION OF A MASSIVE STAR ENVELOPE*
- *Ongoing work on type Ia supernova by Prof Wheeler's group includes SALT data on:*
  - *SN2012ip*
  - *SN2012db*
  - *SN2012dn*
  - *SN2012el*
  - *SN2013aa*
  - *SN2013ao*
  - *SN2013cg*
  - *SN2013cs*
  - *SN2013ex*