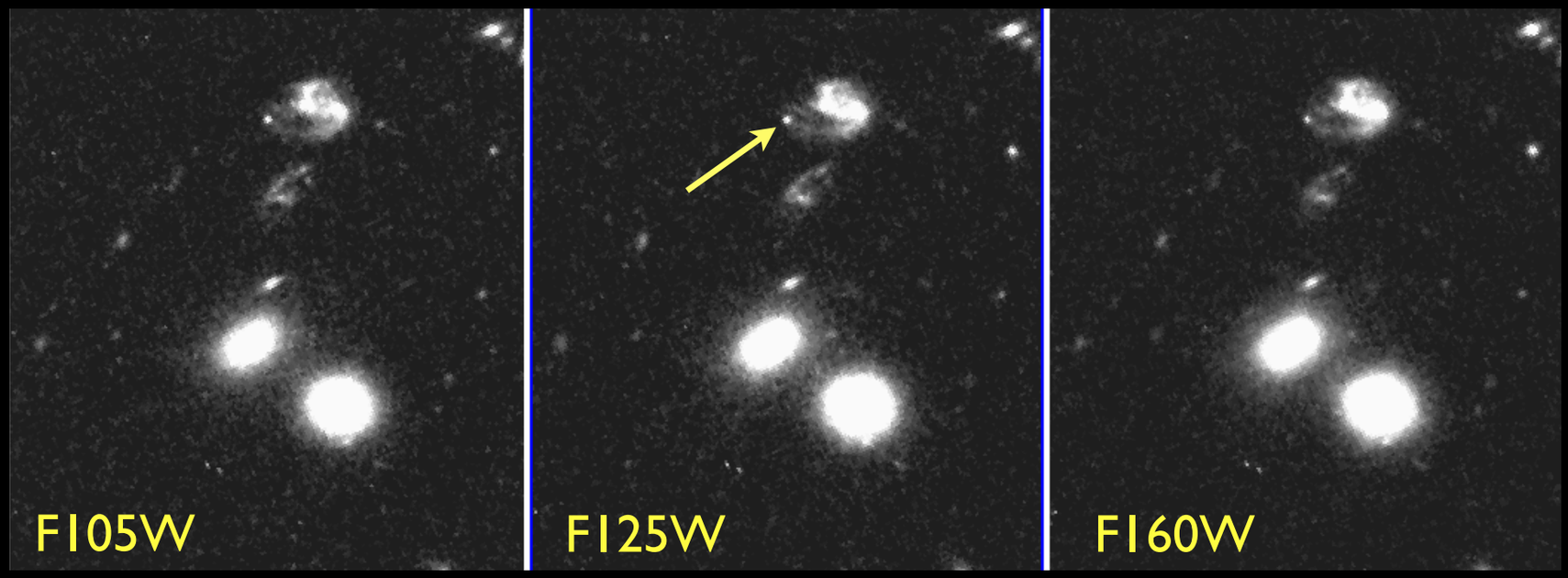
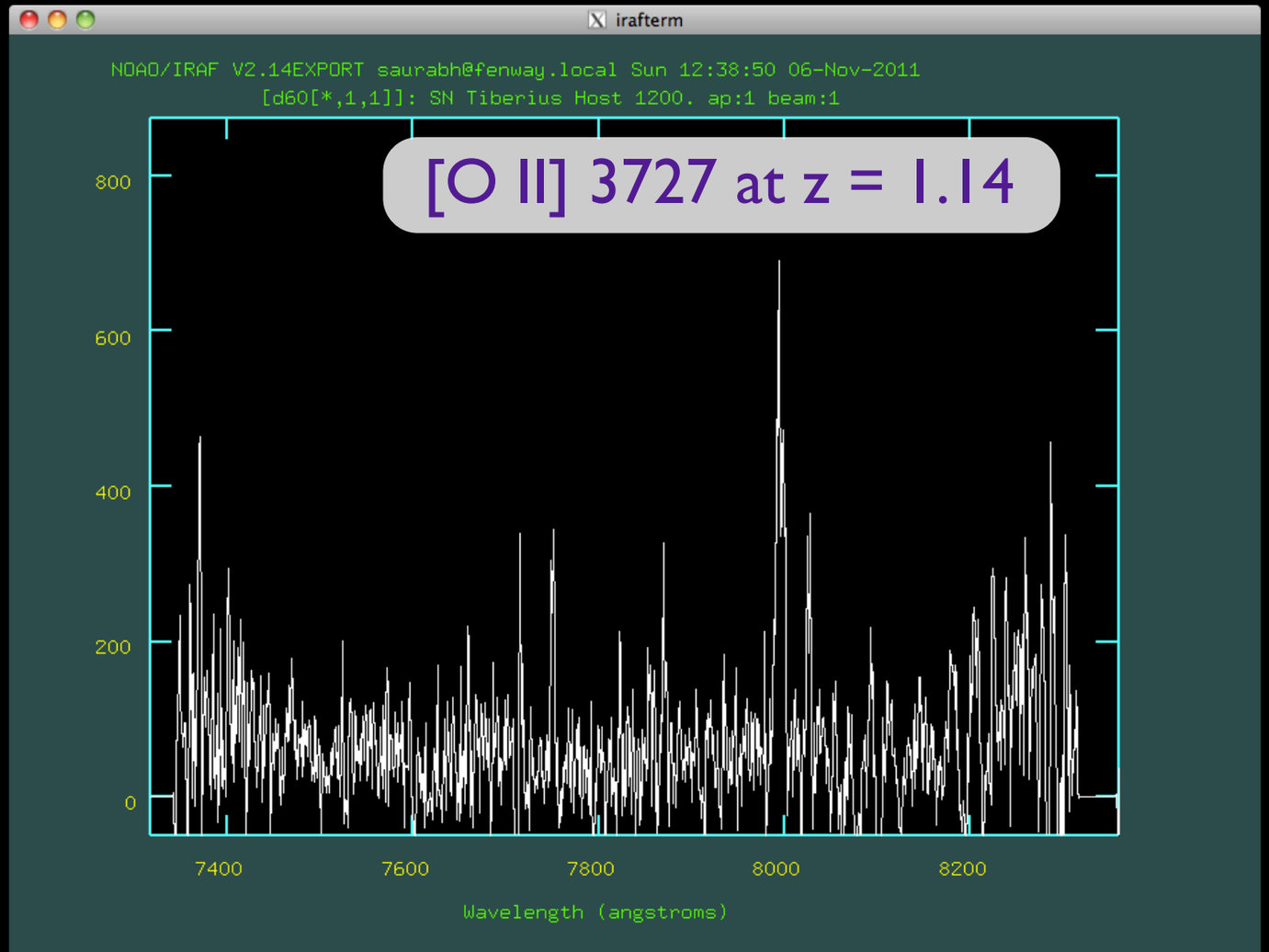
Recent SALT results from Rutgers





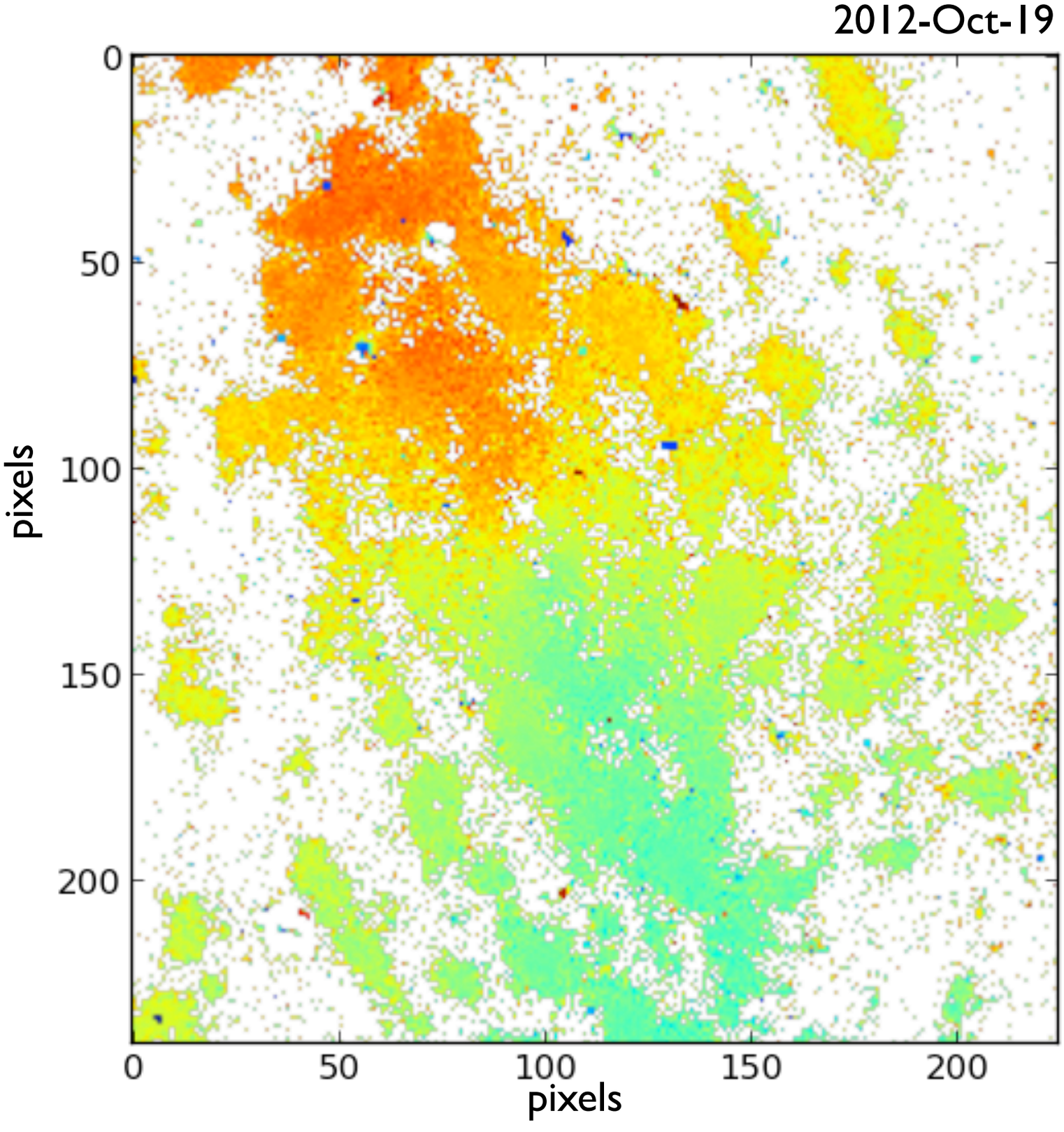
z = 1.14 supernova
discovered by HST CLASH survey
(redshift from SALT!)

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

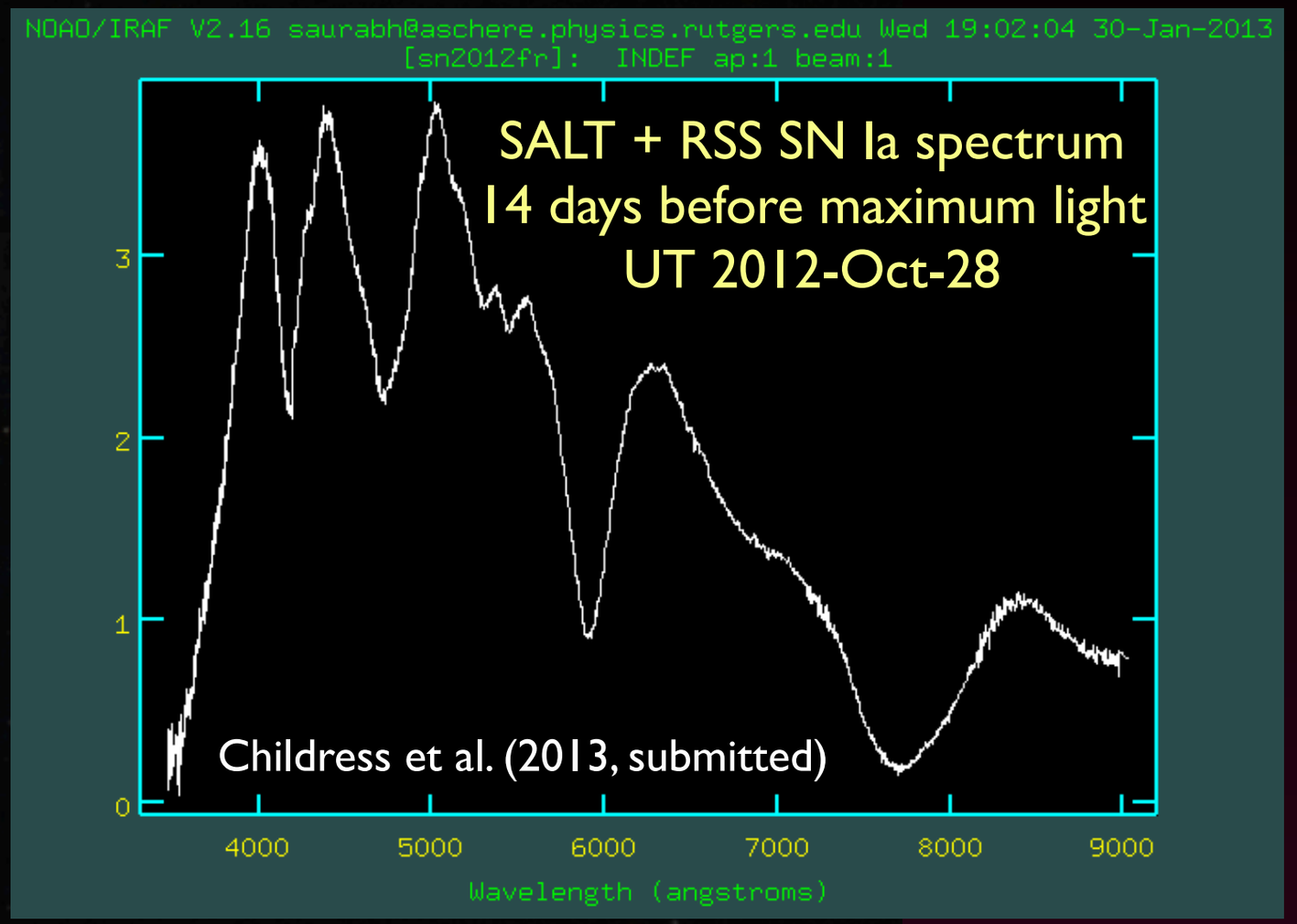
Saurabh W. Jha

SALT Science Workshop CAMK May 22, 2013

SALT RSS+FP velocity map of NGC 2280
RINGS (Sellwood, Mitchell, Spekkens, Williams+)

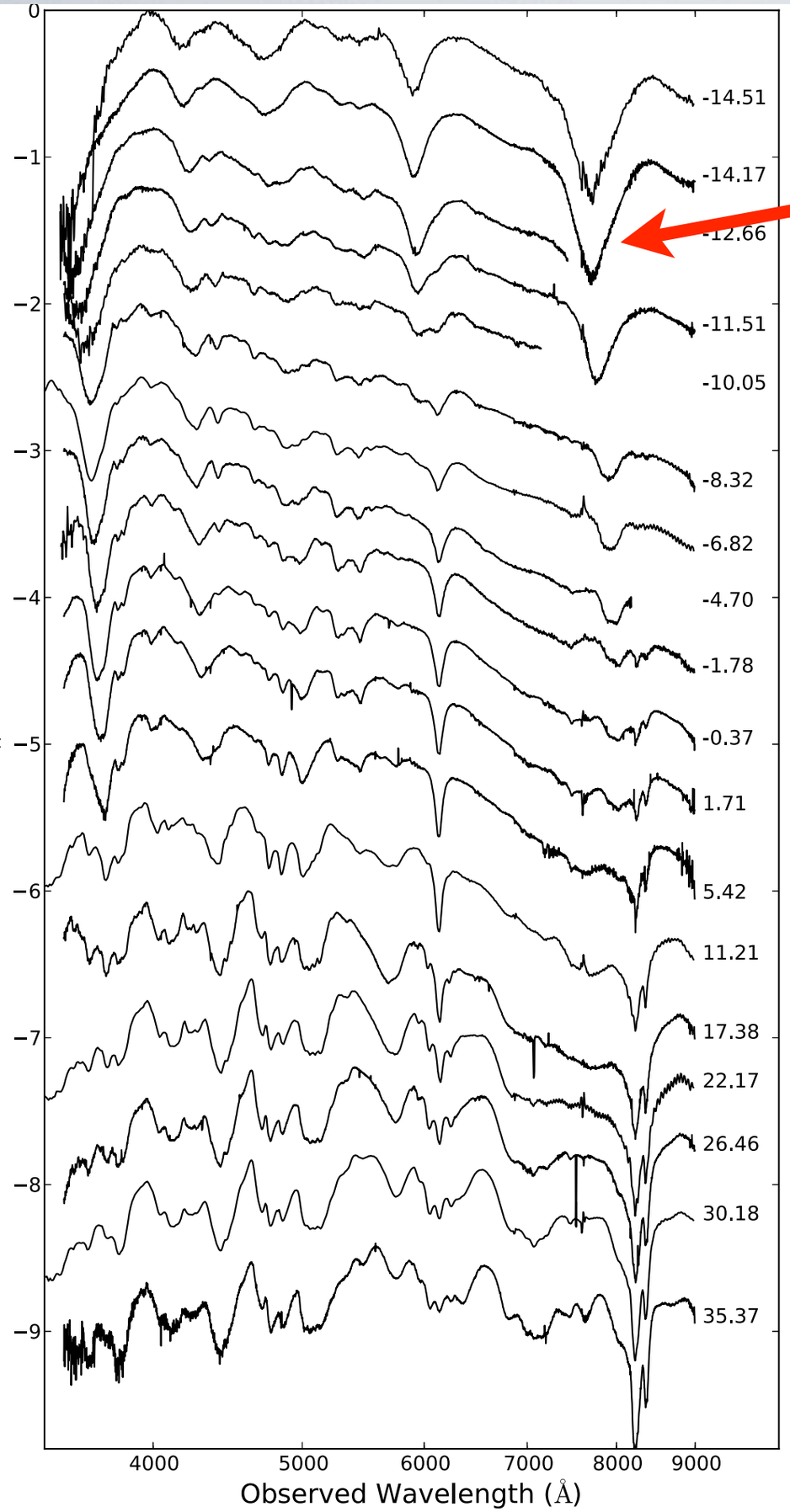


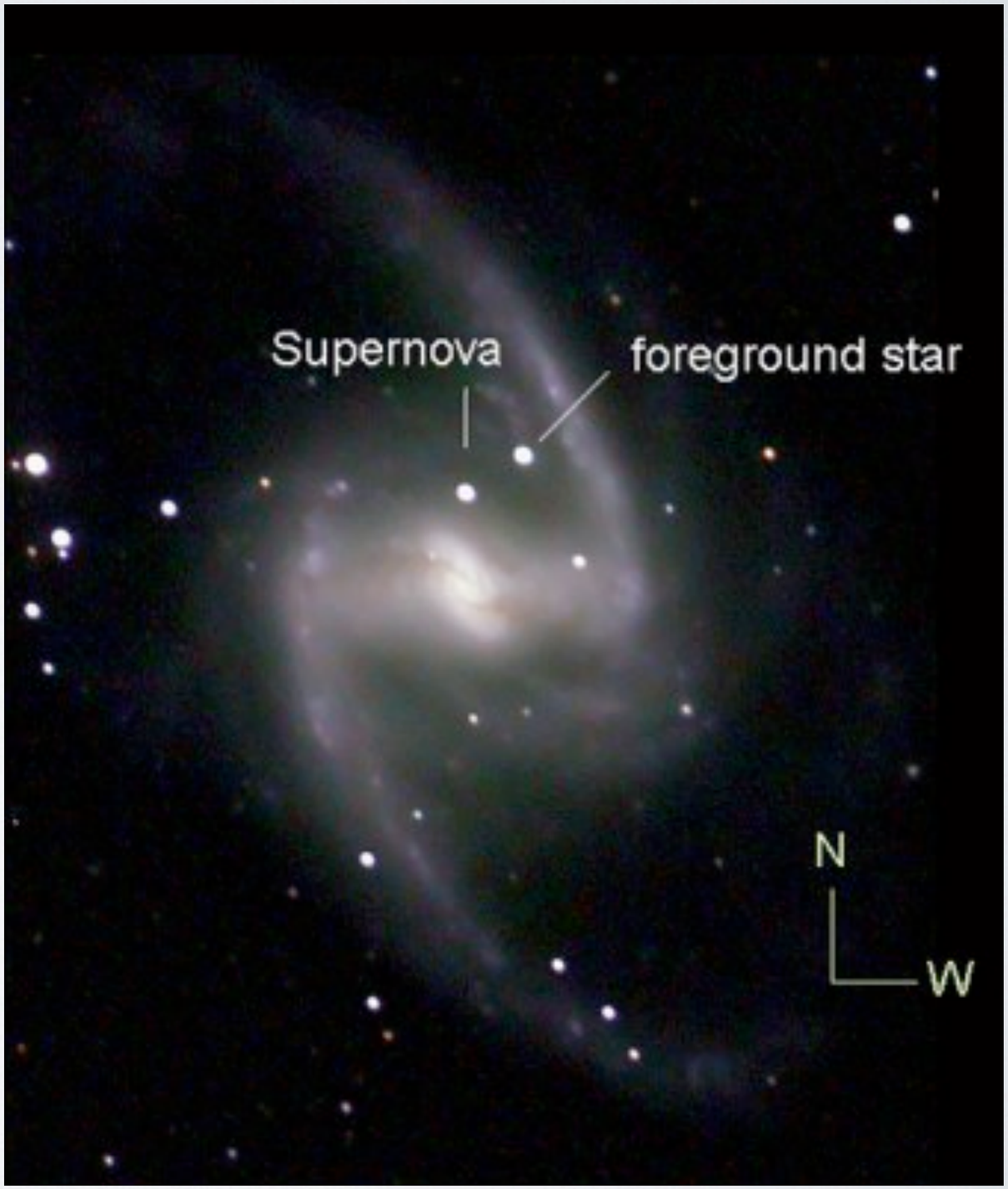
SN 2012fr in NGC 1365



from http://apod.nasa.gov/apod/ap121124.html

SN 2012fr
RSS Spectrum
2 weeks before max!





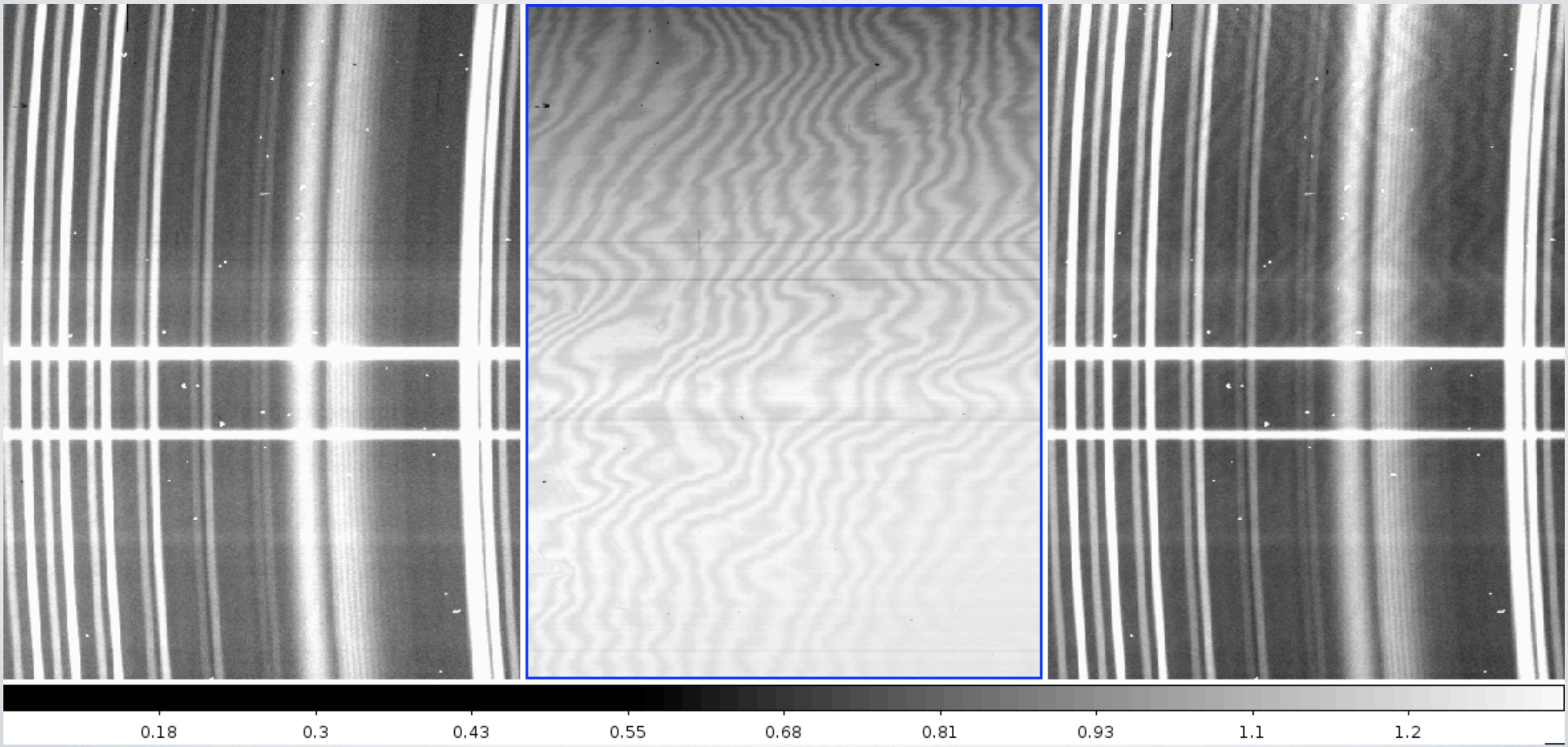
Childress et al. 2013 (McCully, Jha)

FRINGING

Raw

Flat Field

Flat Field Corrected?
(Or not?)



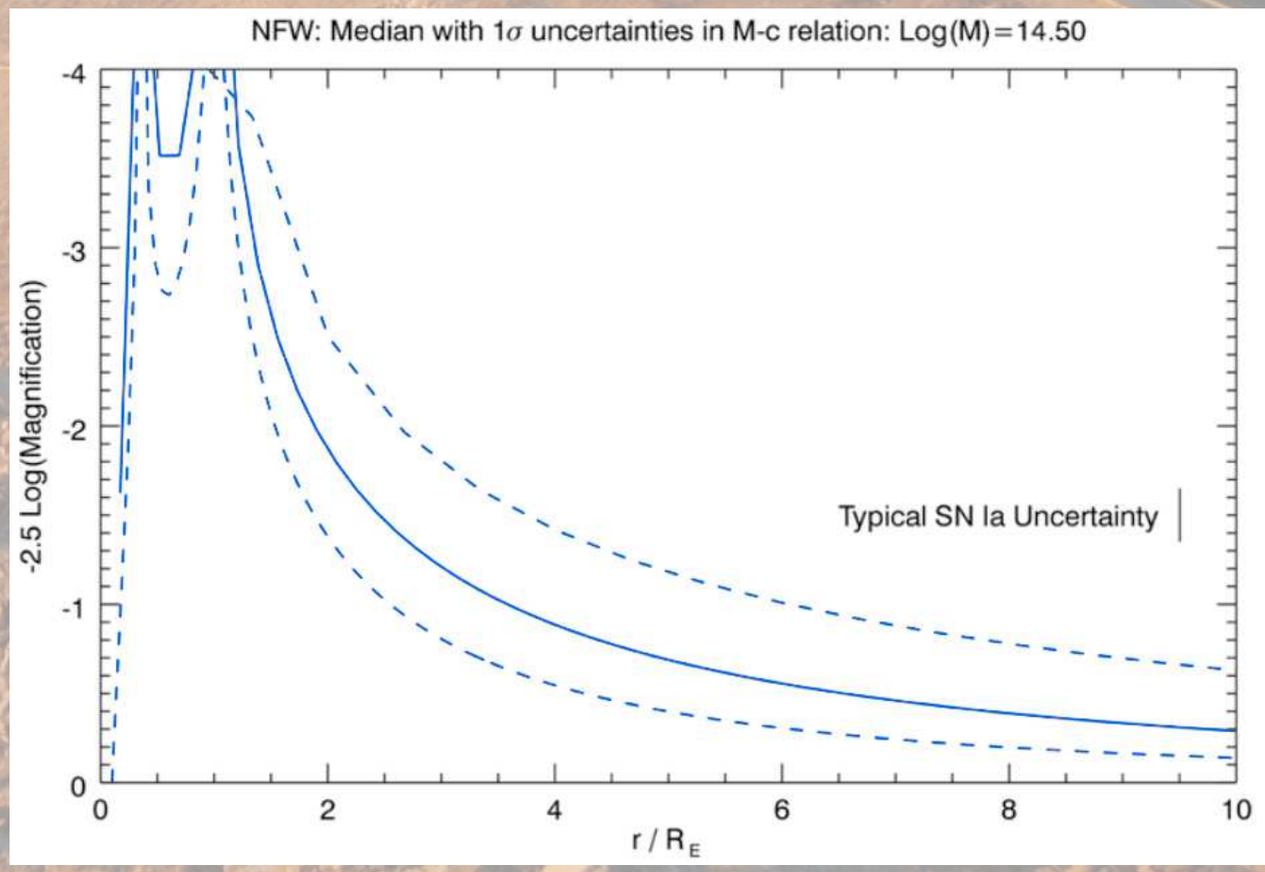
CluLeSS: Cluster and Lensed Supernova Search
target z ~ 0.2 clusters with Magellan + SALT

cluster SN sample

- SN Ia rate: progenitor models, metal enrichment, stars in ICM
- far down SN luminosity function: faint SN Ia, core-collapse SNe (SFR)

lensed SN sample

- measure absolute magnification through cluster
- test cluster-scale CDM predictions: mass profile, substructure; e.g., plot measured SN magnification vs. θ/θ_E
- possibility of highly-magnified SN, strong lensing with multiple images, or even microlensing

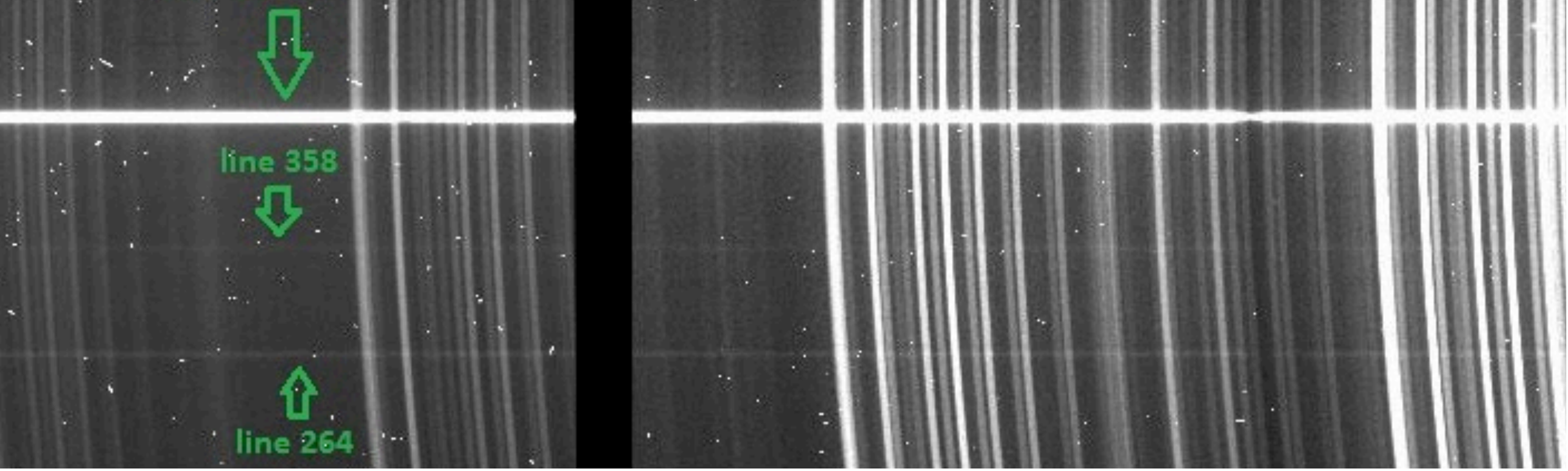


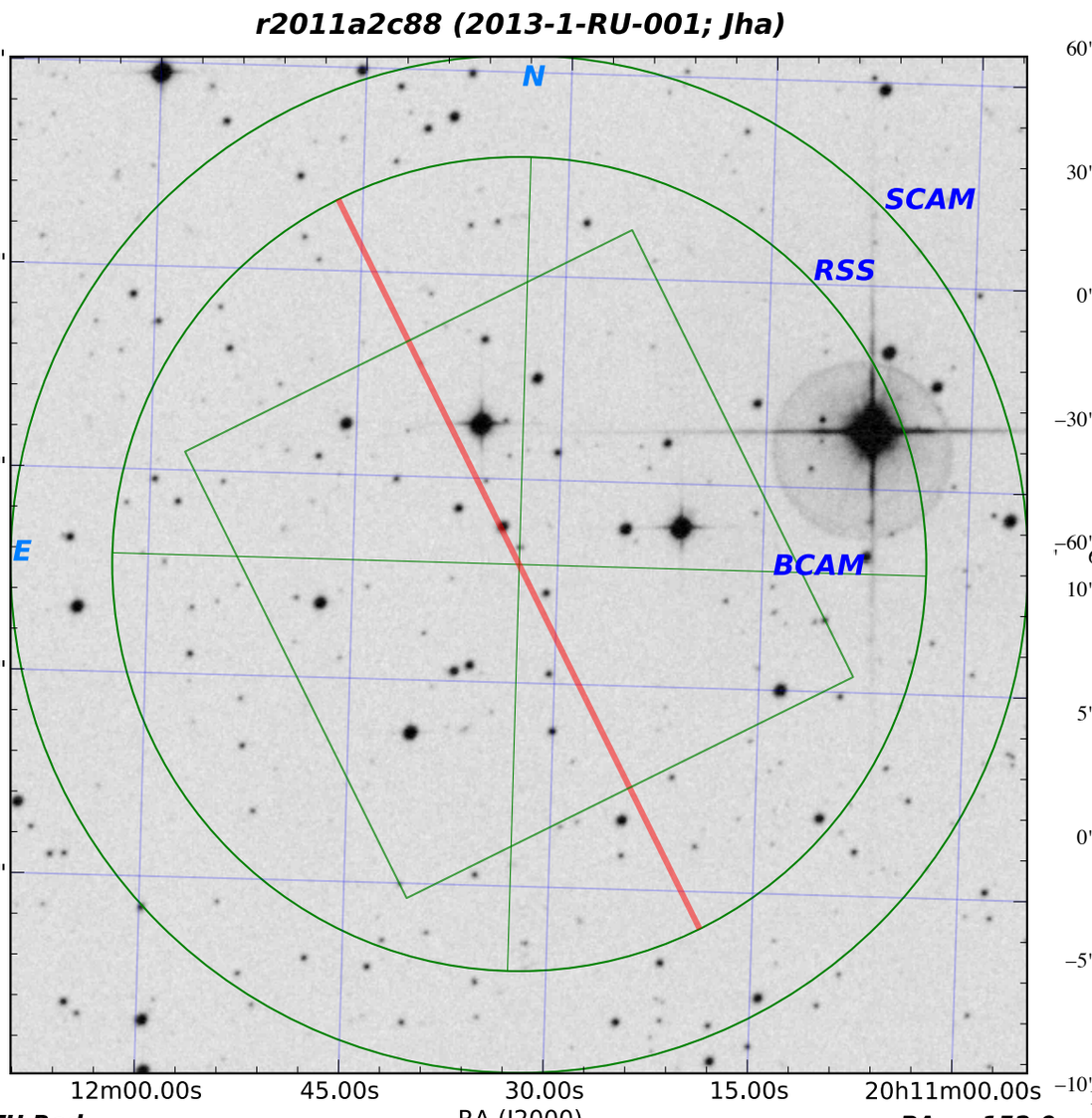
Magellan IMACS f/2 RXCJ0529−5725

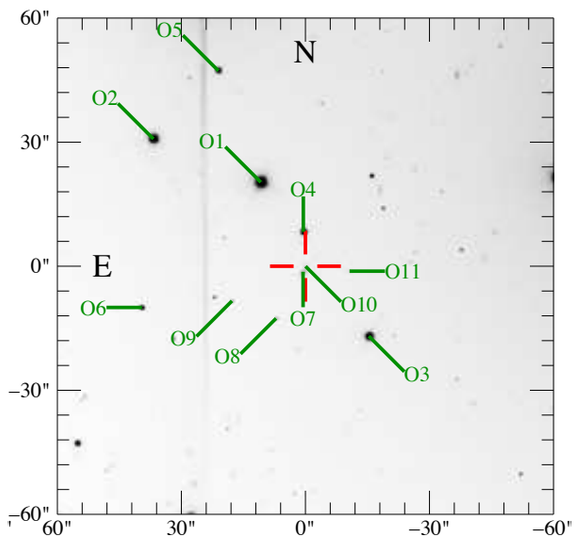
2013-May-08 | 2013-Apr-08 | subtraction

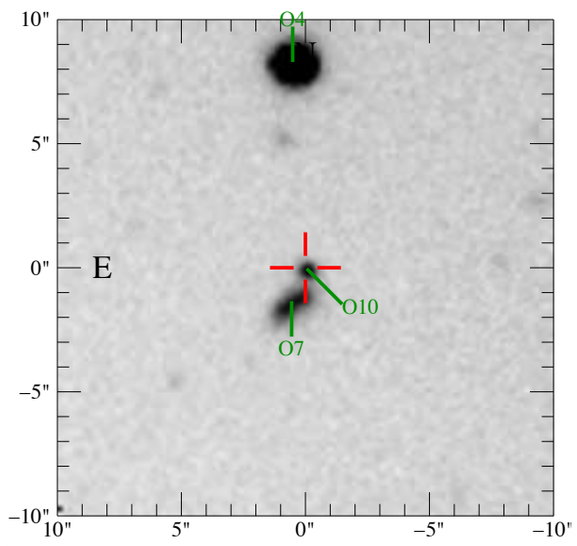
r ~ 22.2

i









2013-May-19 1200s RSS

rapid turnaround/follow-up with queue scheduled SALT data is a major advantage

Magellan search occurs approximately monthly; we **need** light curve followup (SALTICAM), not just followup spectroscopy!