DES15E2mlf :
A Superluminous Supernova at z=1.861 Hosted by a Massive Galaxy

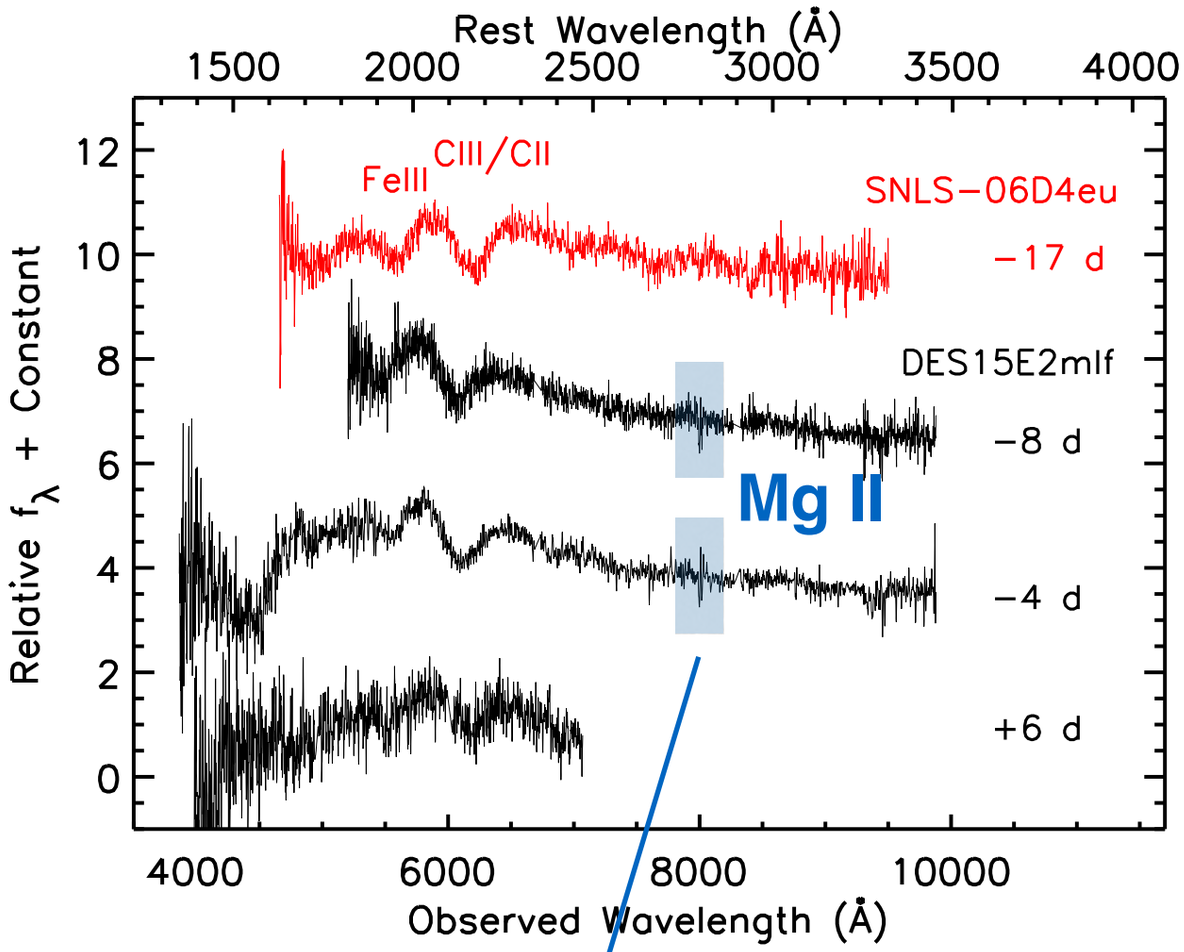
Yen-Chen Pan (University of Illinois)
DES collaborators

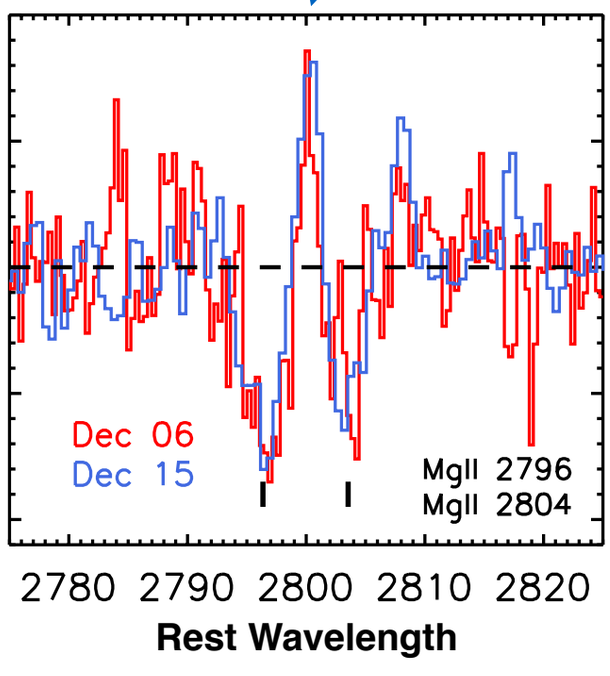
ILLINOIS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

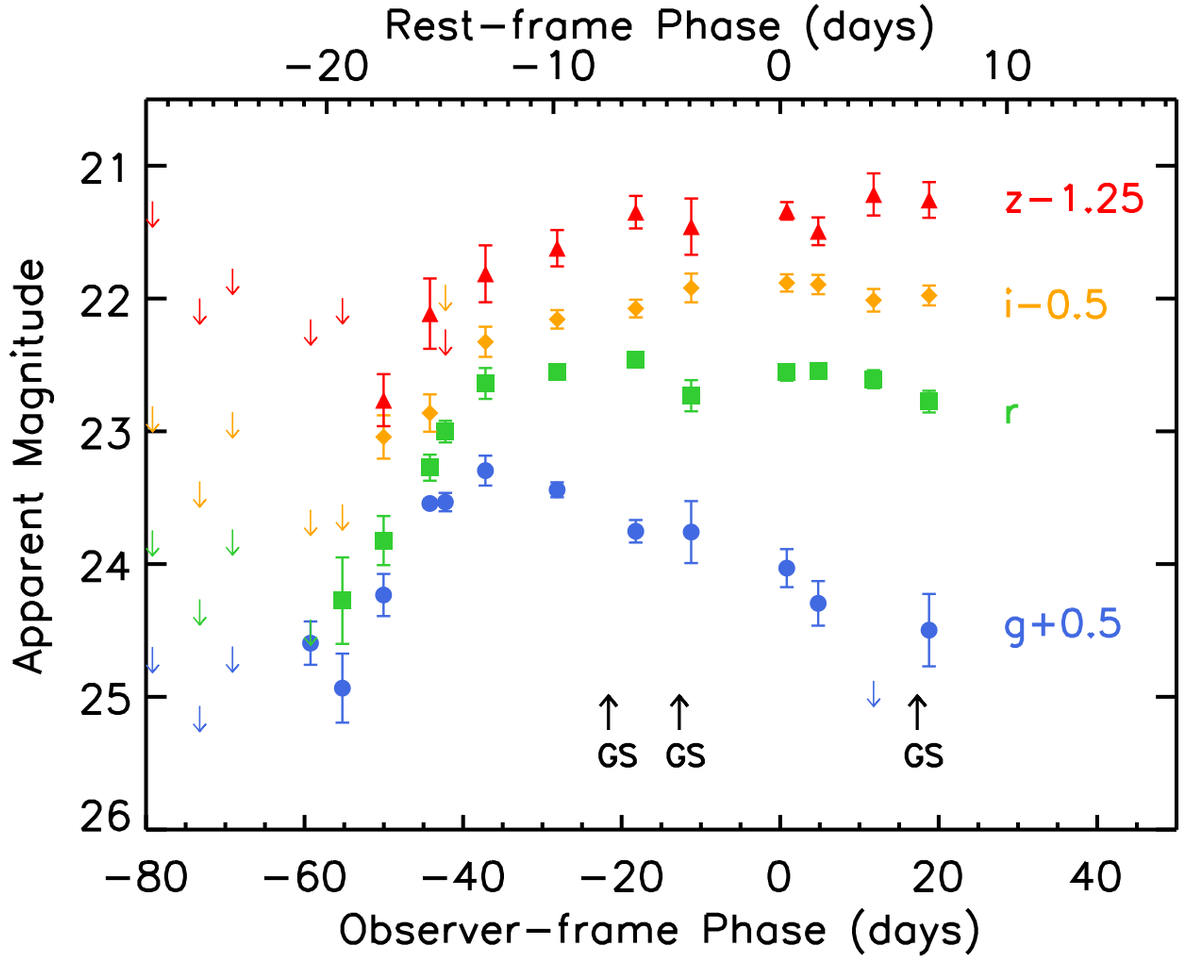
THE DARK ENERGY SURVEY

eweass Athens 2016

The Most Distant SLSN Confirmed !





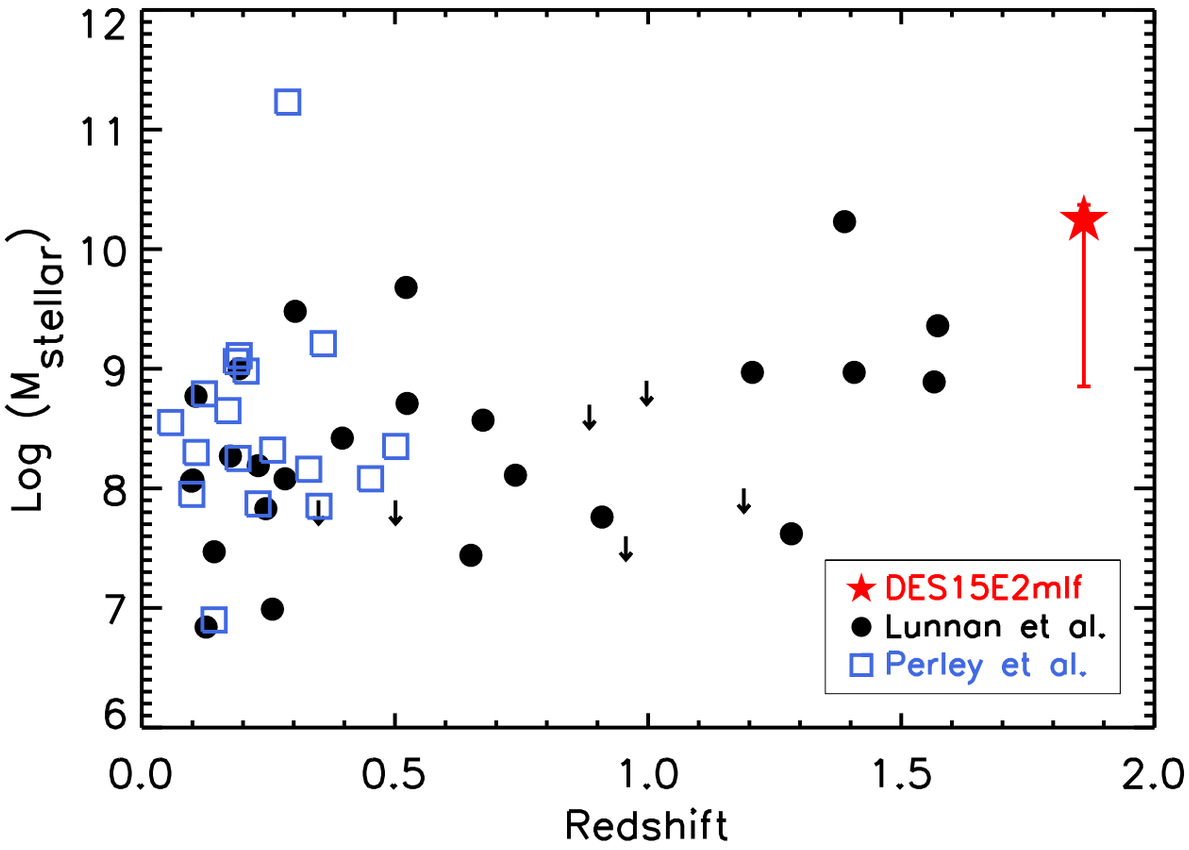


- redshift z = 1.861
- Peak M = -22.3 mag
- Provide unique info in the FUV

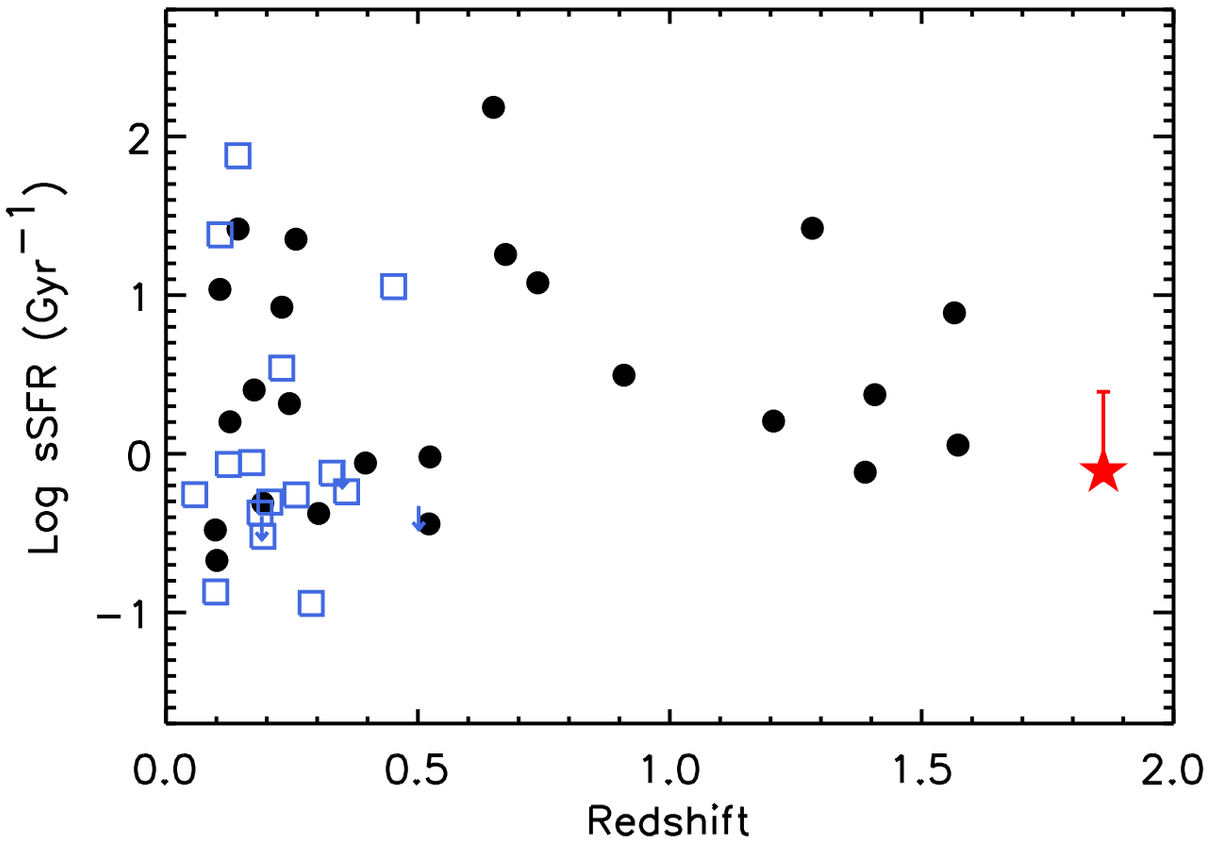
(Pan et al., in prep.)

SLSN in a “Massive” Galaxy?

Host mass v.s. Redshift



Host sSFR v.s. Redshift



- The host is likely to be more “massive” and creating “fewer” stars (per unit mass) than other SLSN hosts.

- Other factors (e.g., metallicity) are more important in creating SLSNe? Does galactic evolution play a role here?

(Pan et al., in prep.)