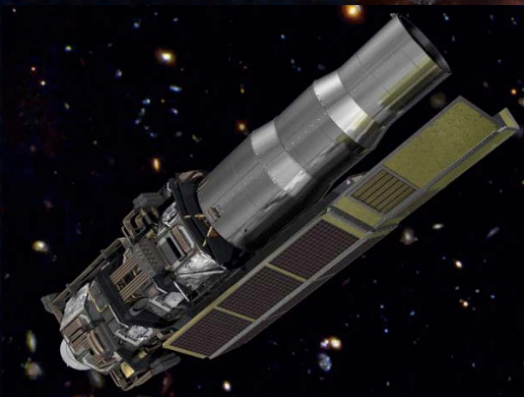
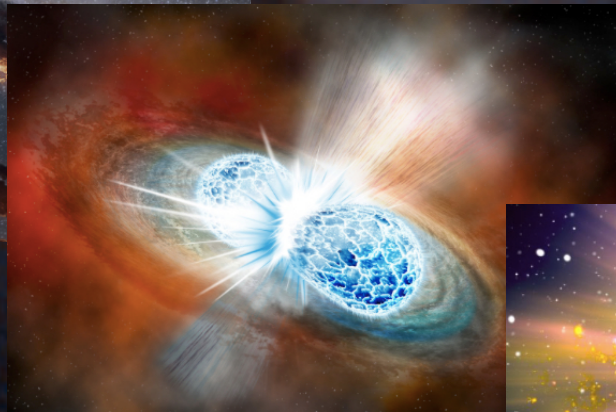


Connecting Transients to Their Host Galaxies

A. Zabludoff (Arizona)

Iair Arcavi (UCSB/Tel Aviv), Decker French (OCIW)

Zhihui Li (Caltech), Yujing Qin (Arizona)



Connecting Transients to Their Host Galaxies

A. Zabludoff (Arizona)

Iair Arcavi (UCSB/Tel Aviv), Decker French (OCIW)

Zhihui Li (Caltech), Yujing Qin (Arizona)

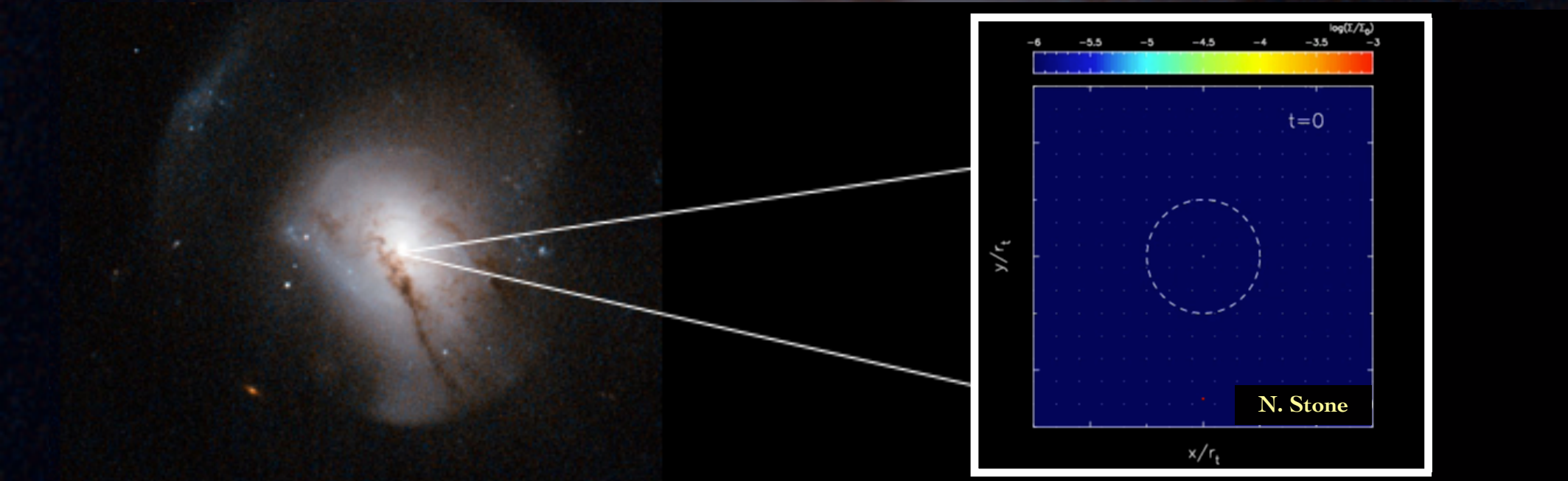


Connecting Transients to Their Host Galaxies

A. Zabludoff (Arizona)

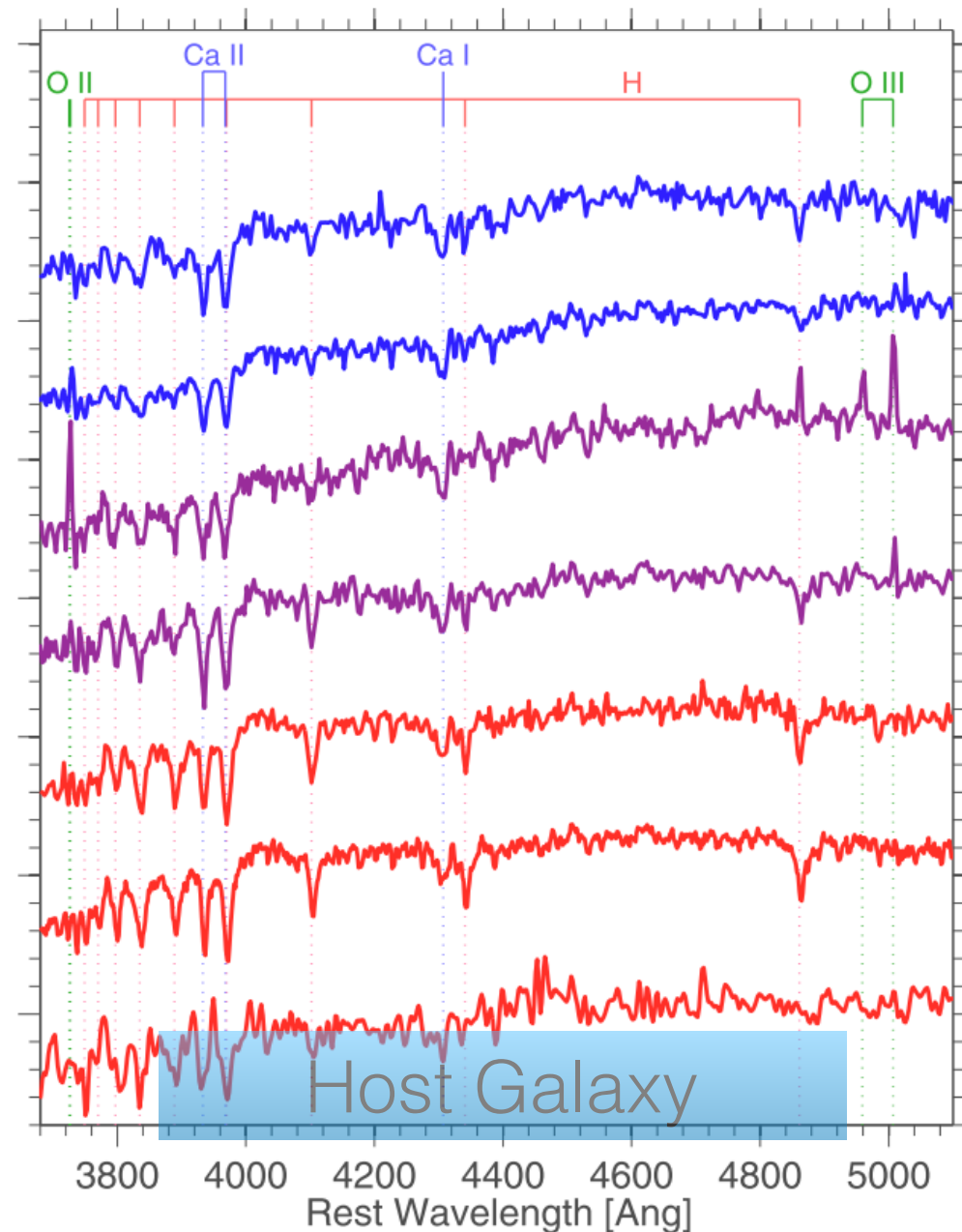
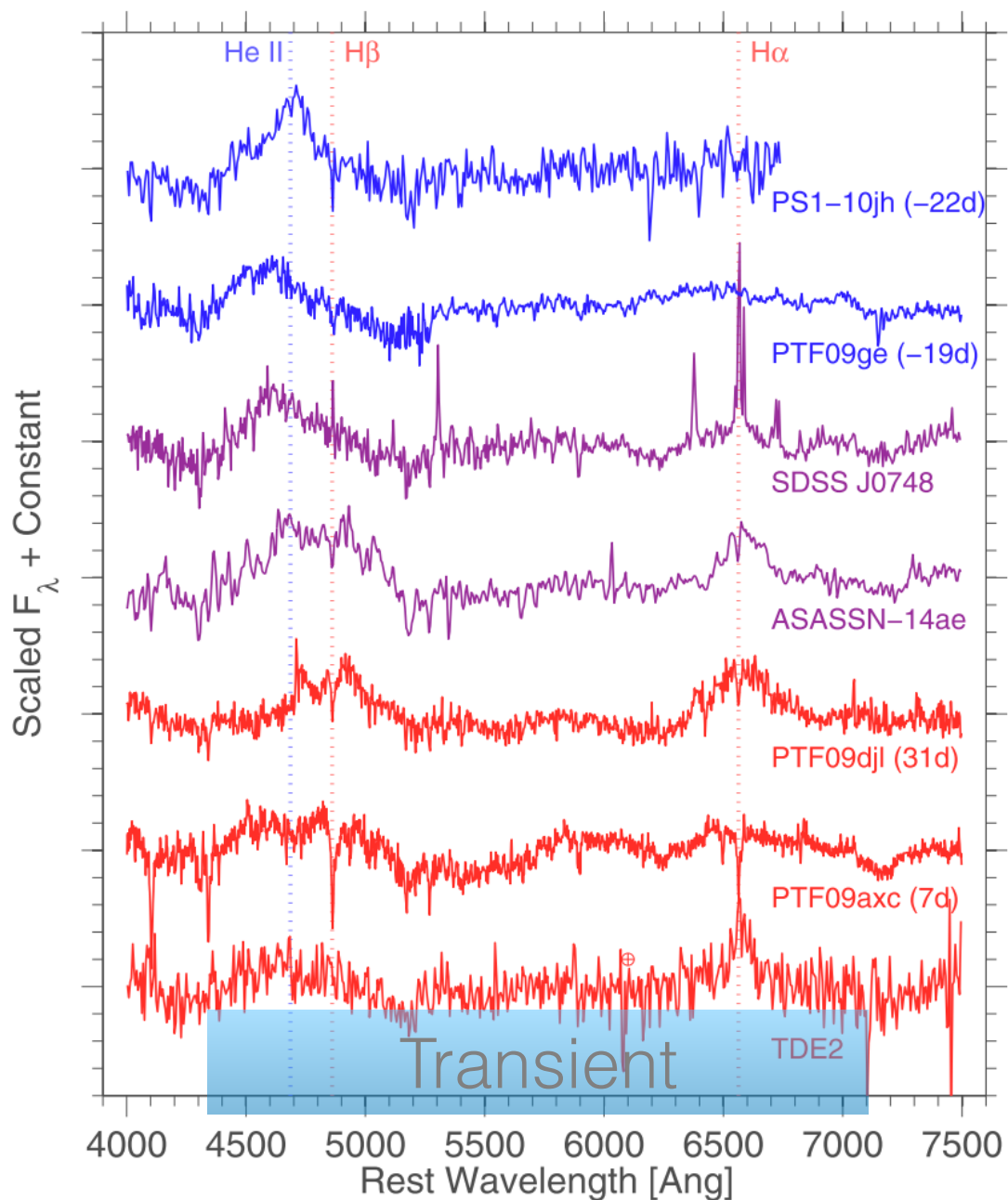
Iair Arcavi (UCSB/Tel Aviv), Decker French (OCIW)

Zhihui Li (Caltech), Yujing Qin (Arizona)



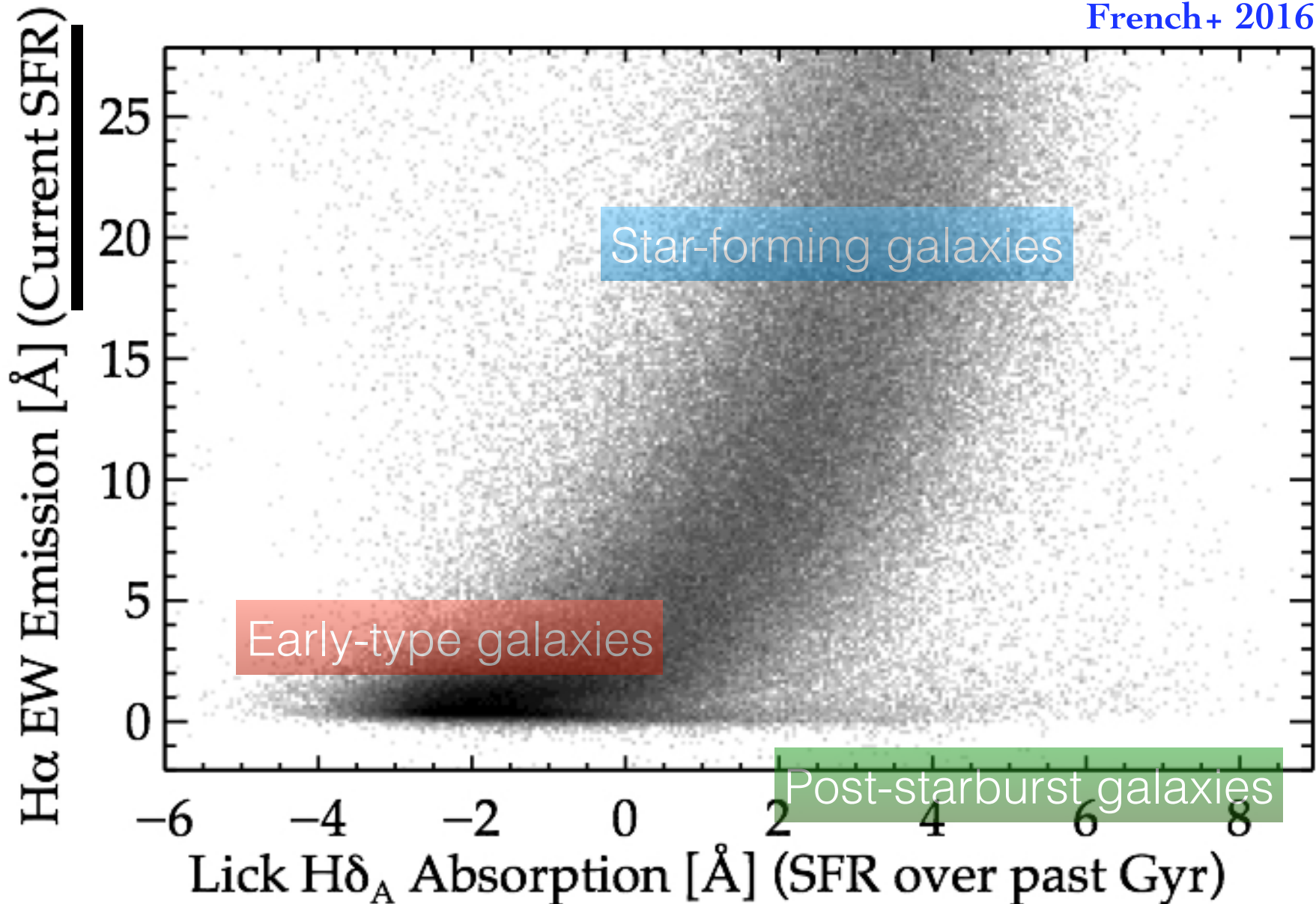
Unusual Host Galaxy Spectra

Arcavi+ 2014



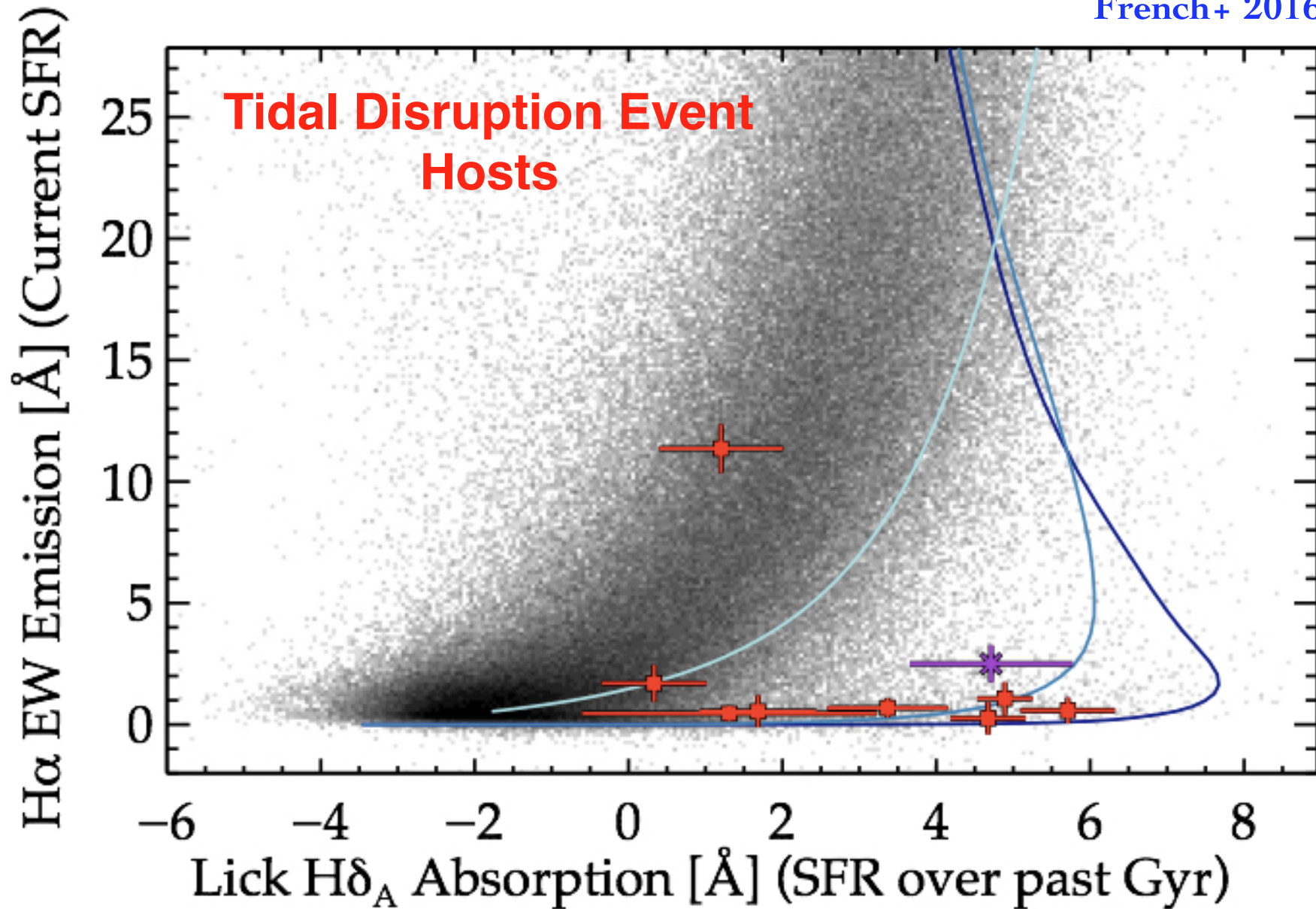
How Unusual are Host Spectra?

French+ 2016



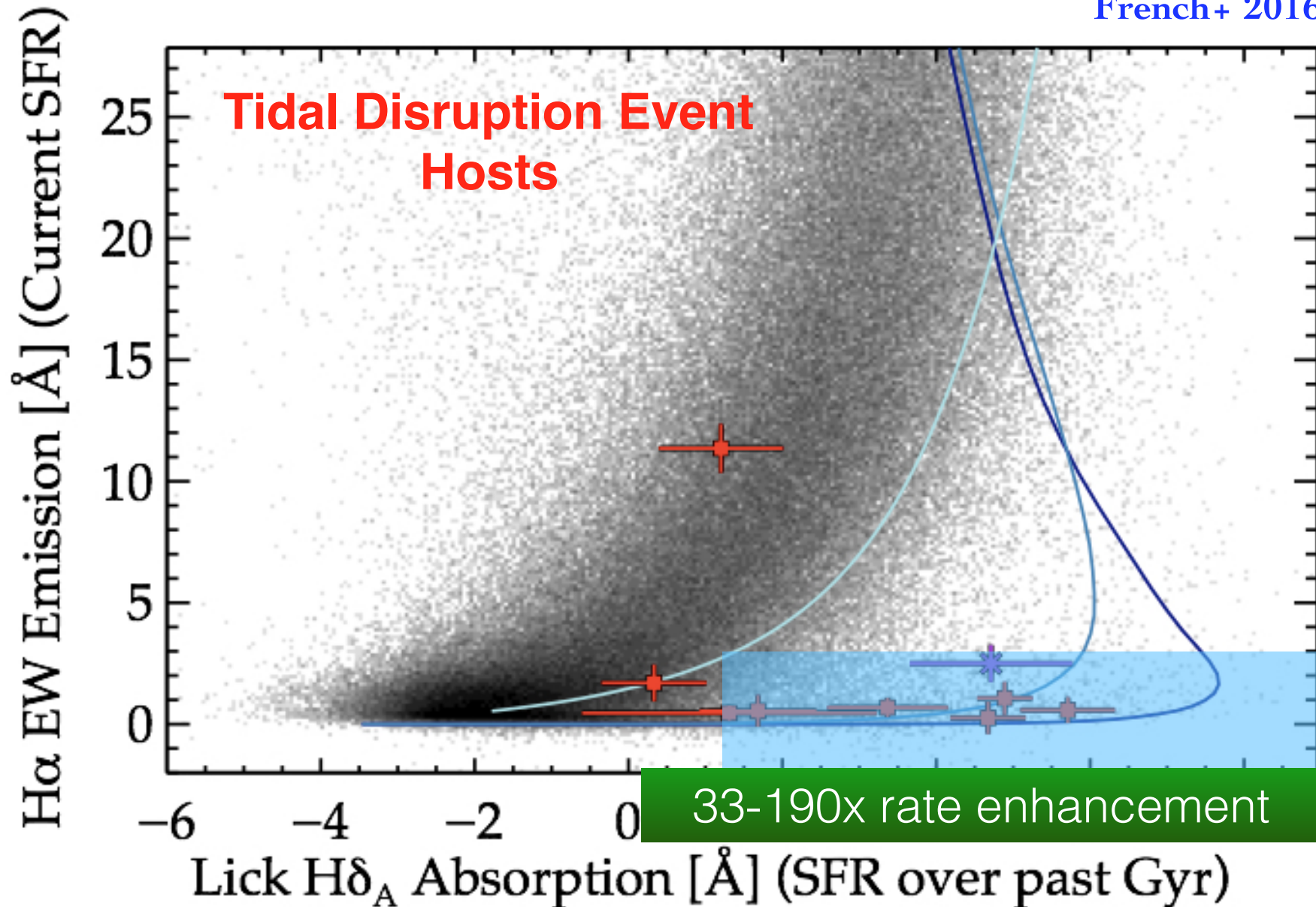
How Unusual are Host Spectra?

French+ 2016



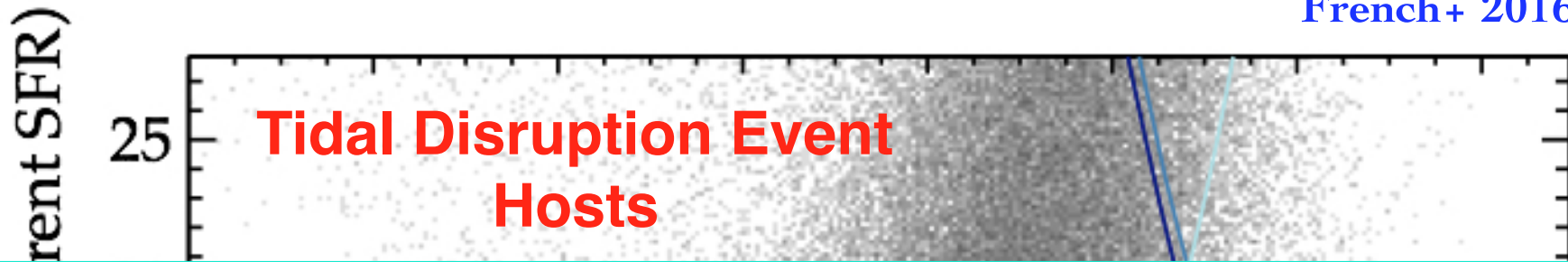
How Unusual are Host Spectra?

French+ 2016

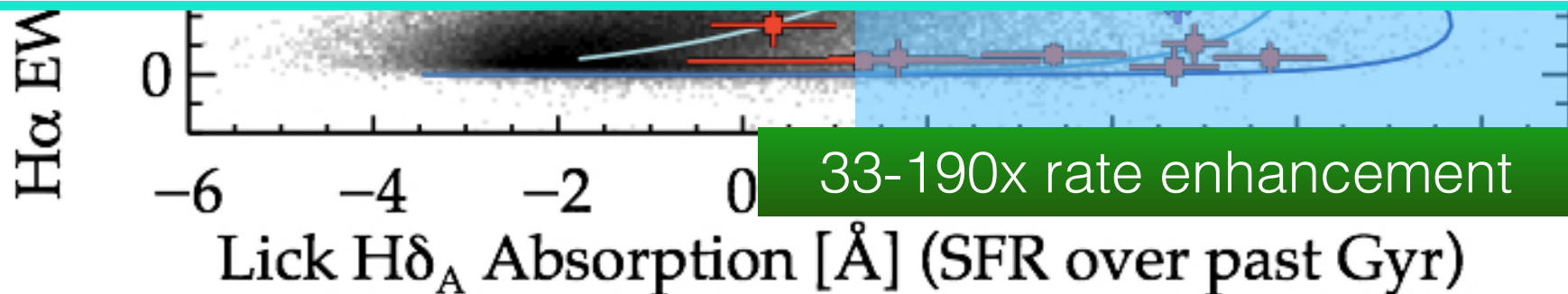


How Unusual are Host Spectra?

French+ 2016



tidal disruption events
favor post-starburst
galaxies



How Unusual are Host Spectra?

French+ 2016



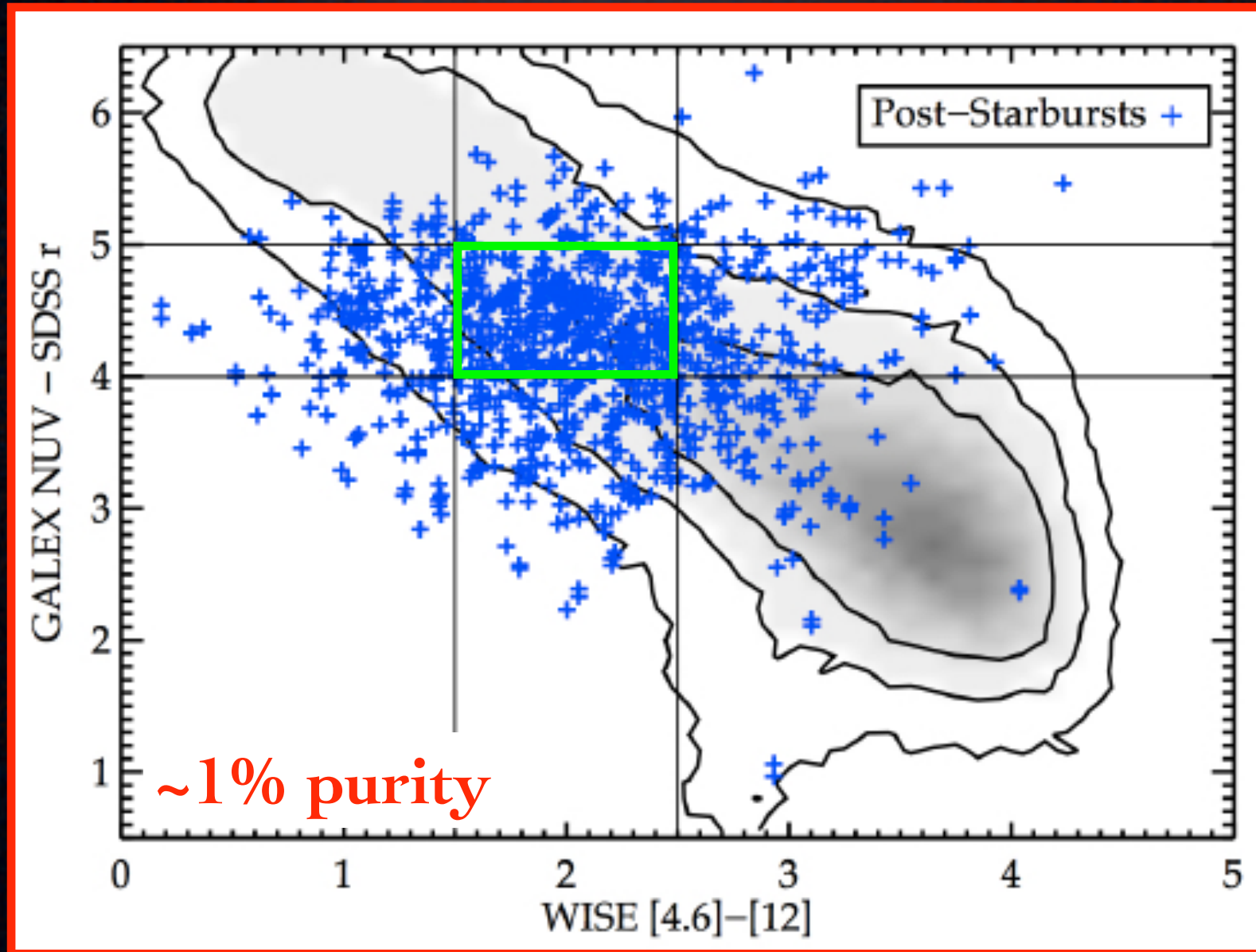
No Matter Why,
Host Preference Useful...

...As Tool for Transient Classification



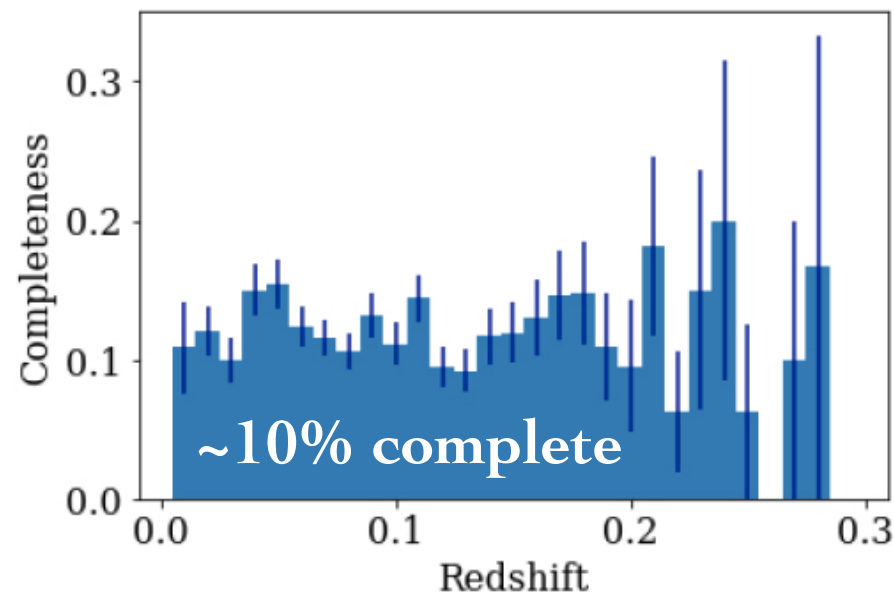
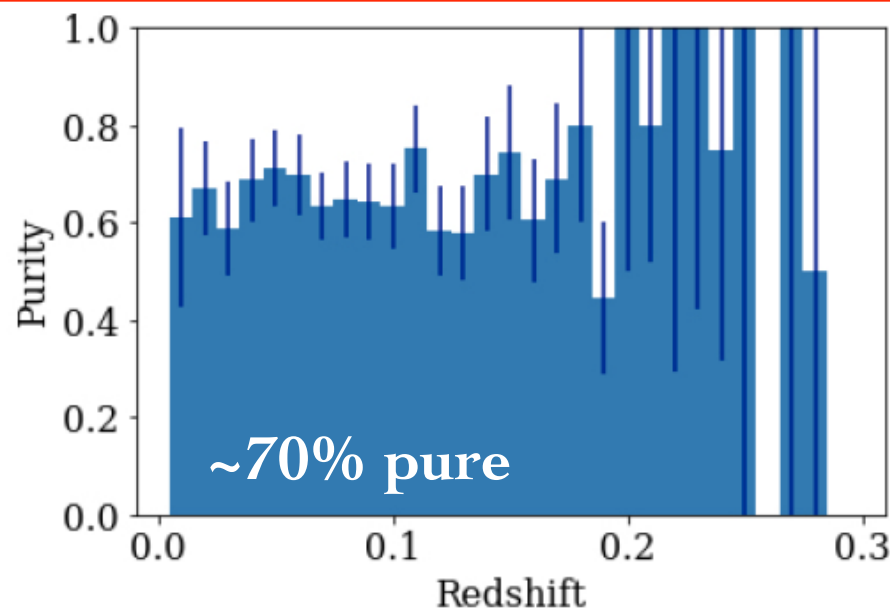
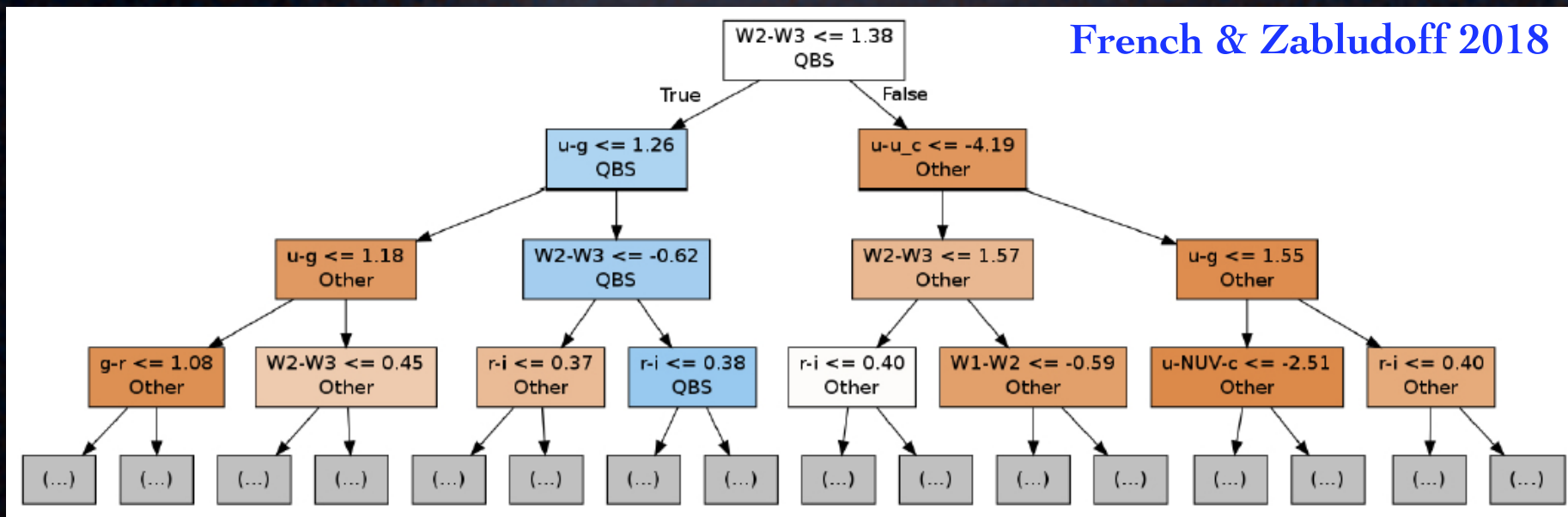
**10 Million Alerts
per Night!**

Find Hosts via “Green Valley”



Find Hosts via Machine Learning

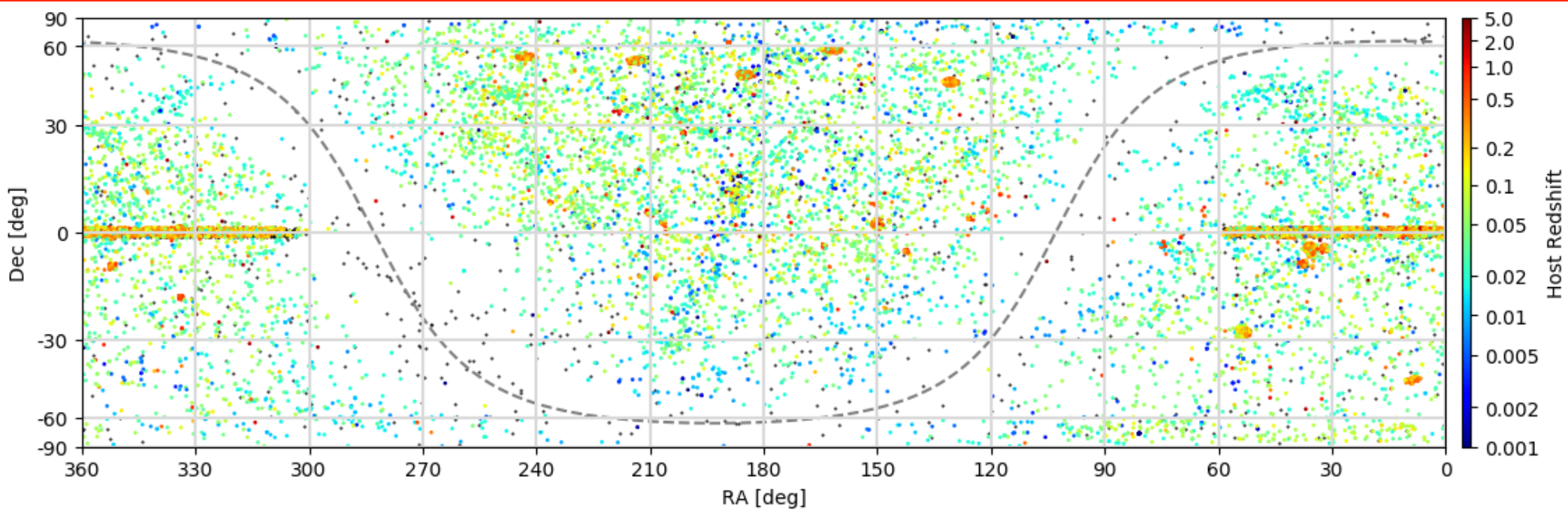
French & Zabludoff 2018



Extend to Hosts of Other Transients

THEx Transients

1939



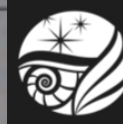
RESEARCH, DISCOVERY & INNOVATION

Data Science Institute

RA [deg]

CC SN

CC SN (Pec)



CARNEGIE
SCIENCE



TEL AVIV
UNIVERSITY



Northwestern
University

