

Spectral Analysis of CLU Galaxies

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Many thanks to:

Dave Cook, Caltech

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Angela Van Sistine, University of Wisconsin

Daniel Dale, University of Wyoming

GROWTH

- ❖ Cover 3π of sky
- ❖ 4 narrow-band filters
- ❖ Find bright emission line galaxies

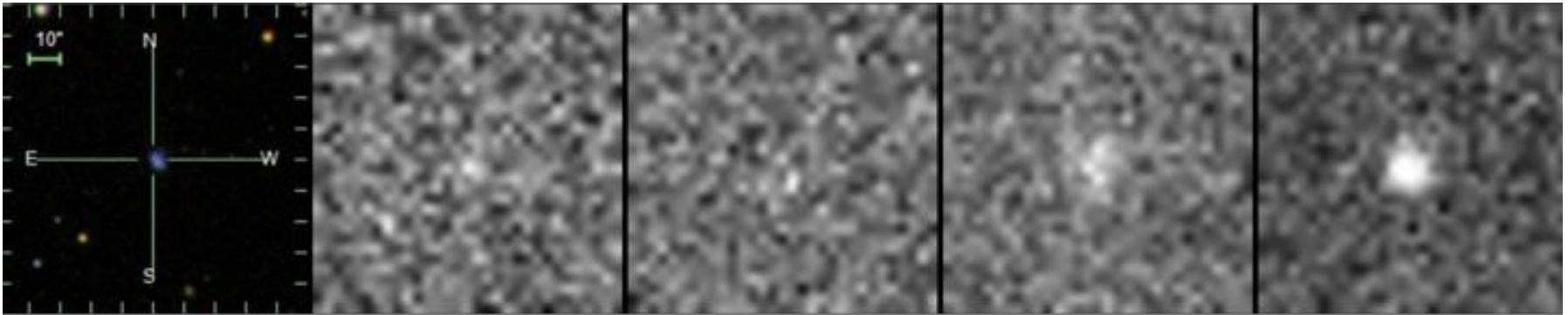
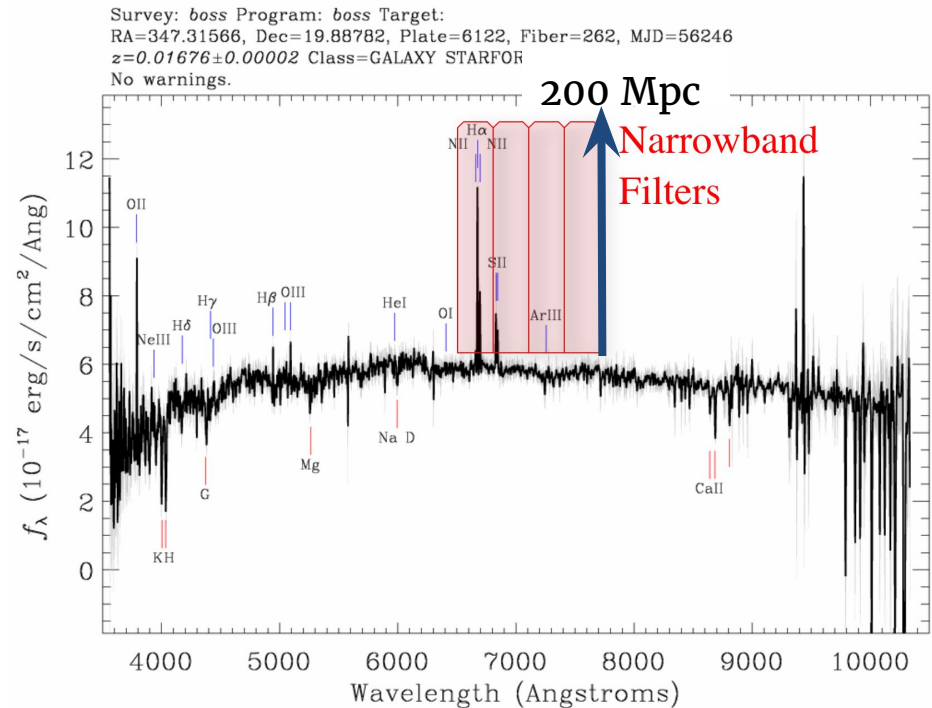


Image Credit: D. Cook

- ❖ Galaxies cover $<1\%$ of sky
- ❖ Reduce search area EM follow-up

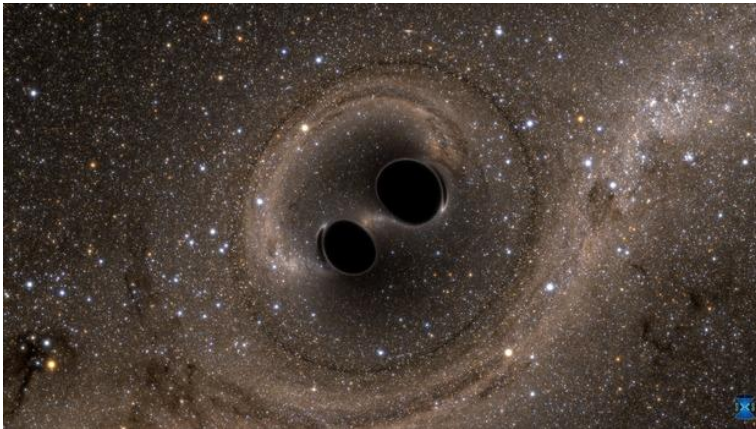


Image Credit: SXS: the Simulating eXtreme Spacetimes Project

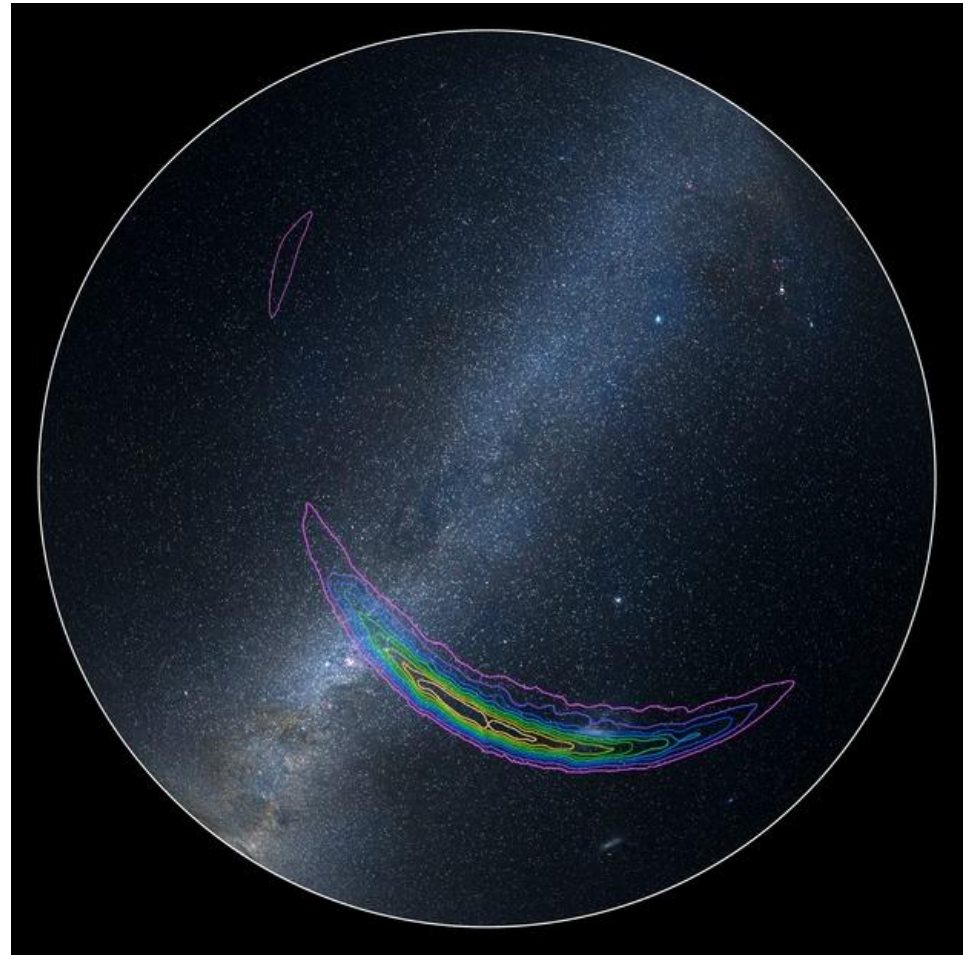
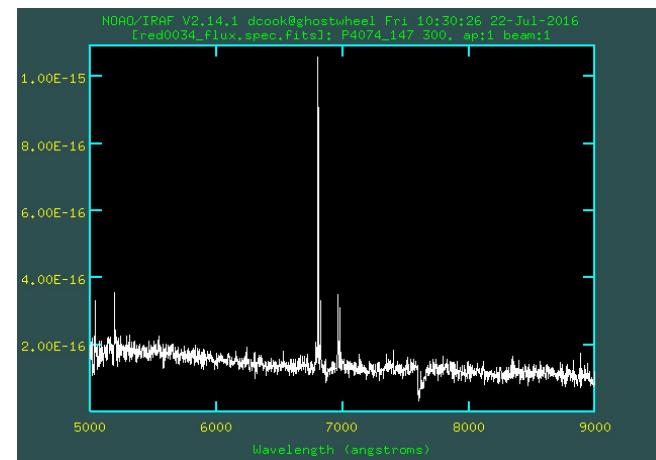
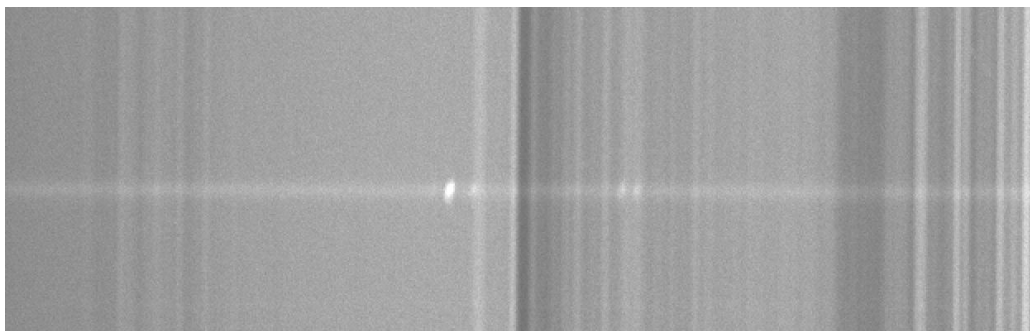
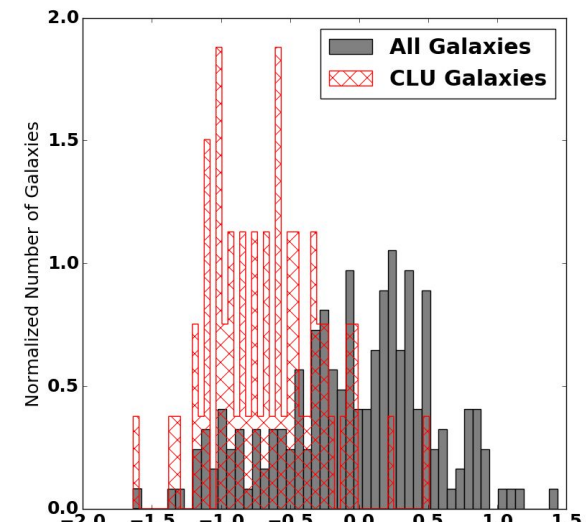
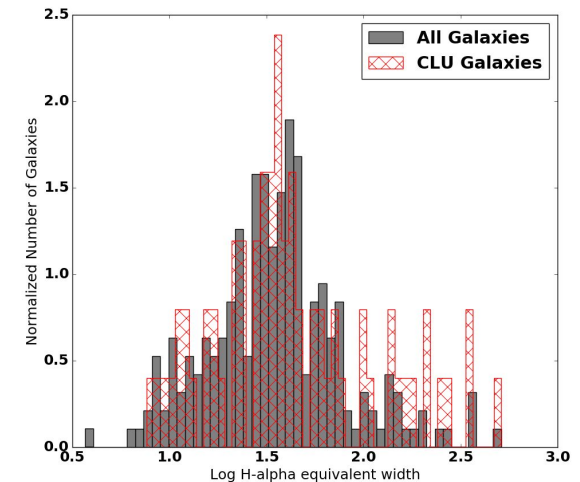
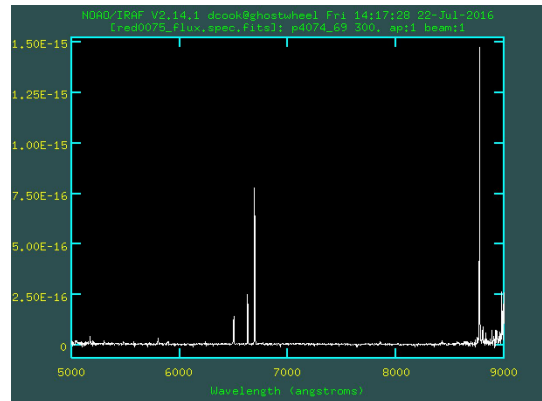


Image Credit: LIGO/Axel Mellinger

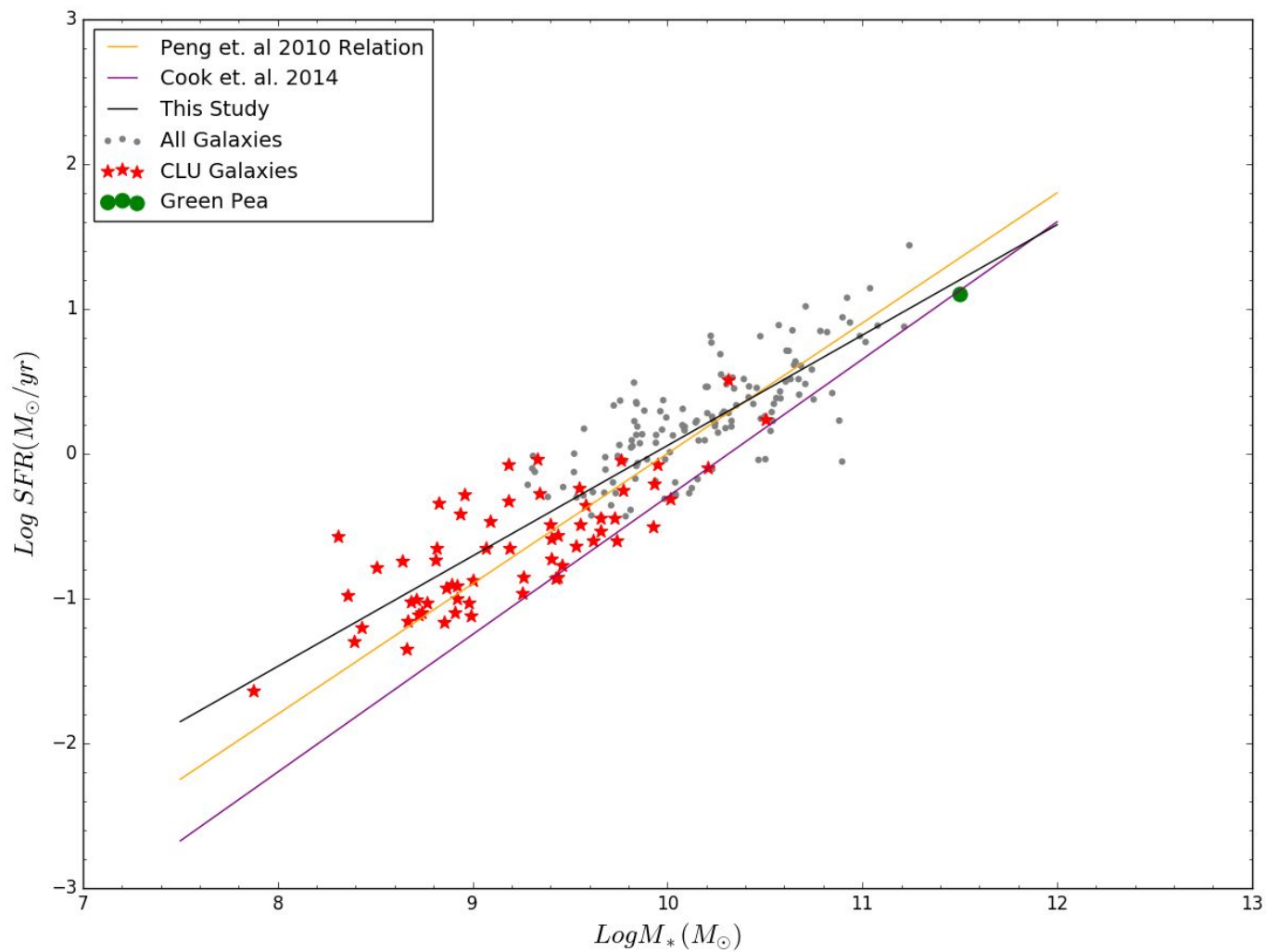
- ❖ Spectral follow-up with Palomar 200"
- ❖ Double-slit spectrograph
- ❖ Get large wavelength range



- ❖ H-alpha Equivalent Width
 - Range: 3.69–512.34
 - Peak at 35 angstroms
- ❖ H-alpha flux range: 8.317×10^{-17} – 3.162×10^{-14}
- ❖ Redshift range: 0.012 – 0.336
 - 70 out of 222 galaxies in correct range
- ❖ Green Pea!



Main Sequence



Questions?



Image Credit: NASA/Swift/Dana Berry