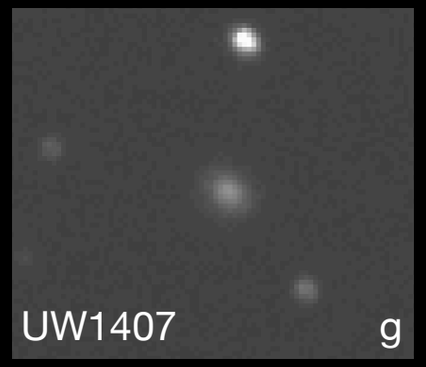
Dragonfly UWS

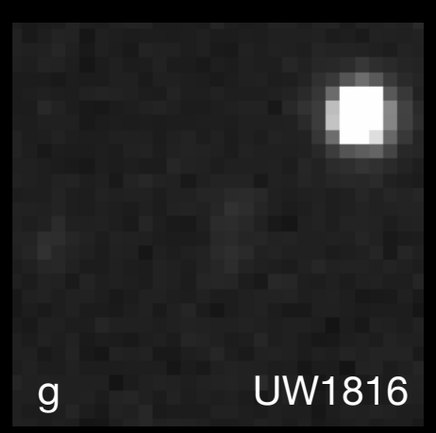
What exists in these data?

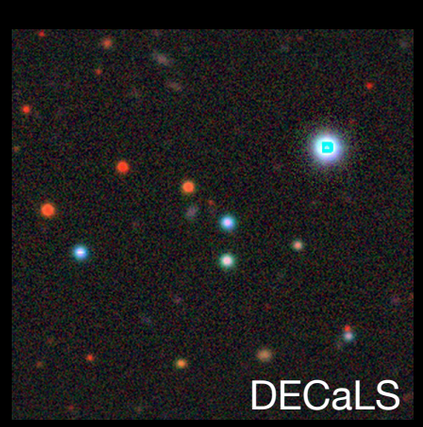
“Contaminating” sources

- Distant spiral galaxies

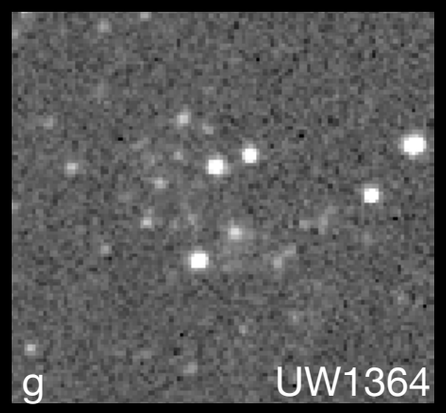


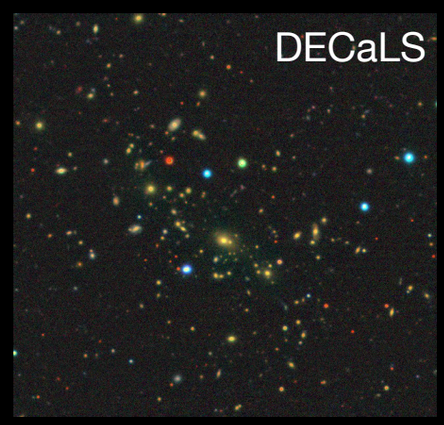
- Faint stars in our shallower data





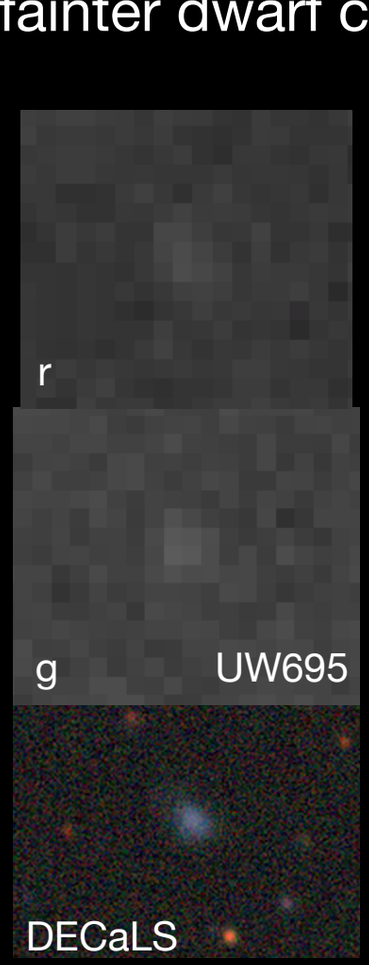
- Clusters at z ~ 0.3

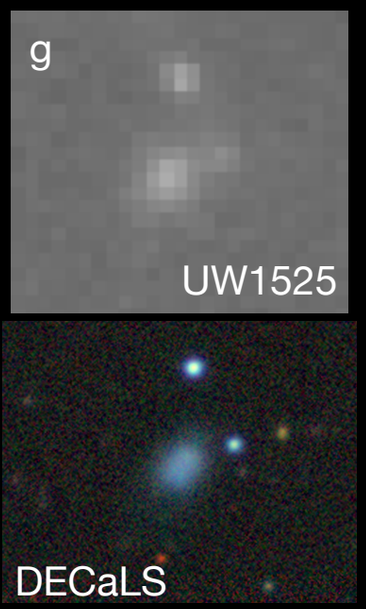


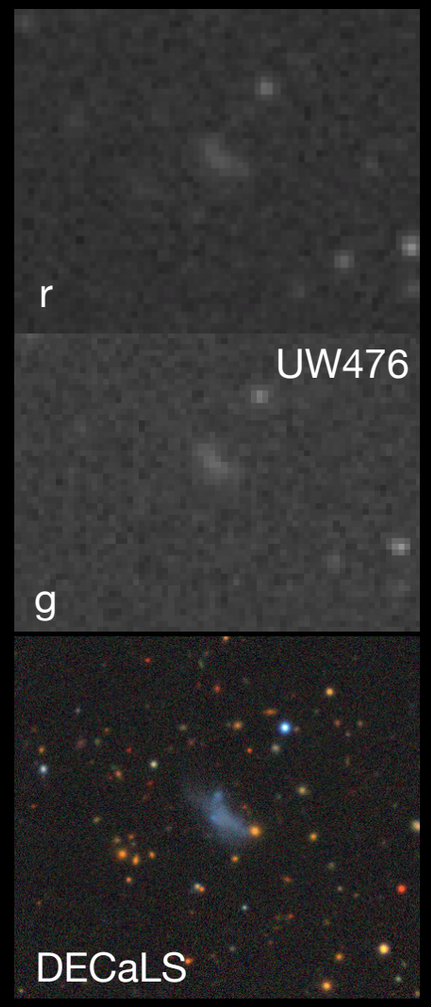


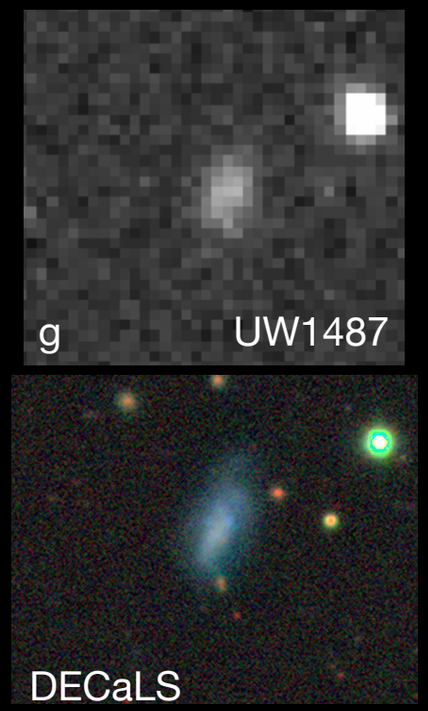
Fuzzy things - dwarf galaxy candidates

- Often difficult to distinguish from faint stars or spiral galaxies without high resolution data
- MRF really draws them out — still working on optimizing the parameter file for the depth of the UWS
- Spatial number density is consistent Danieli+ 2018; very likely that we're missing smaller/fainter dwarf candidates without effectively automating detection

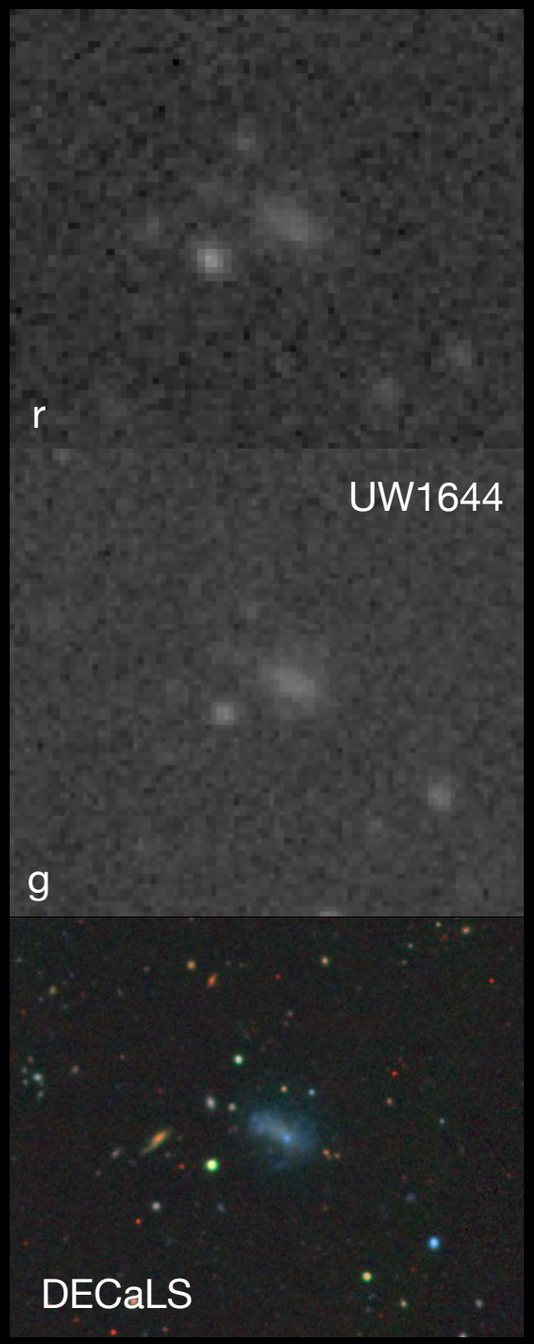


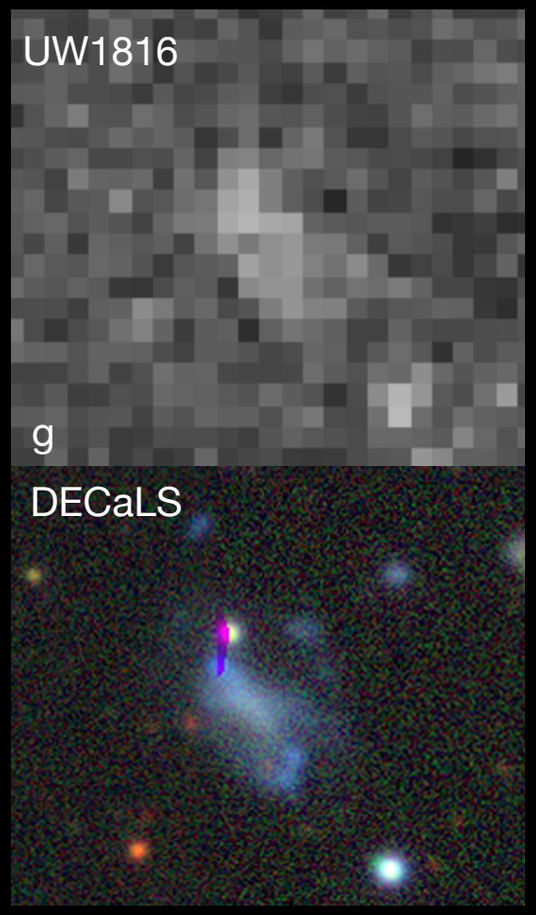


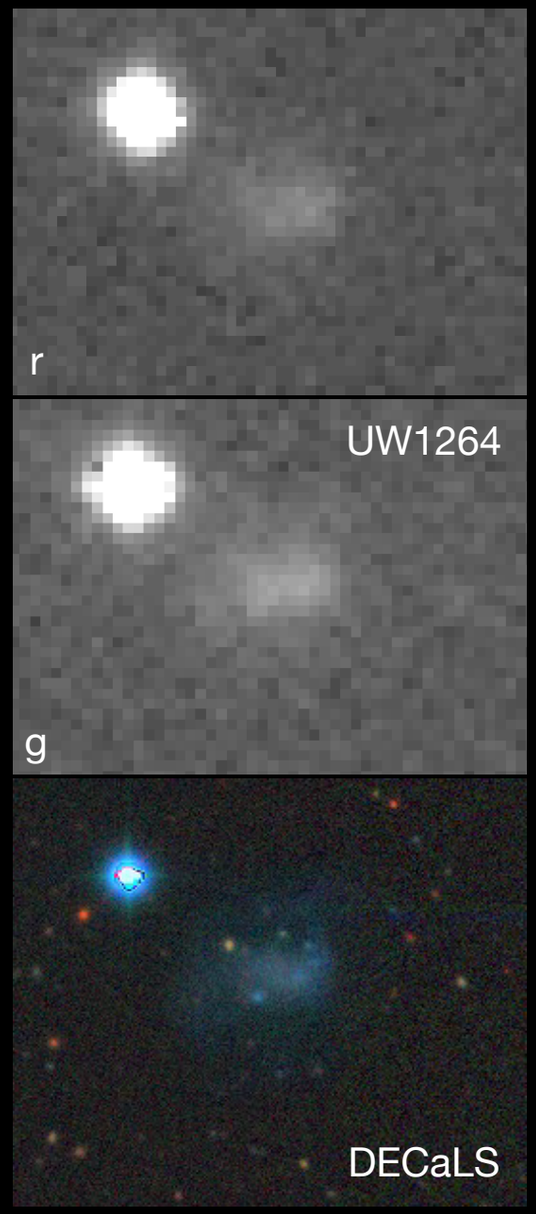




dlrrs

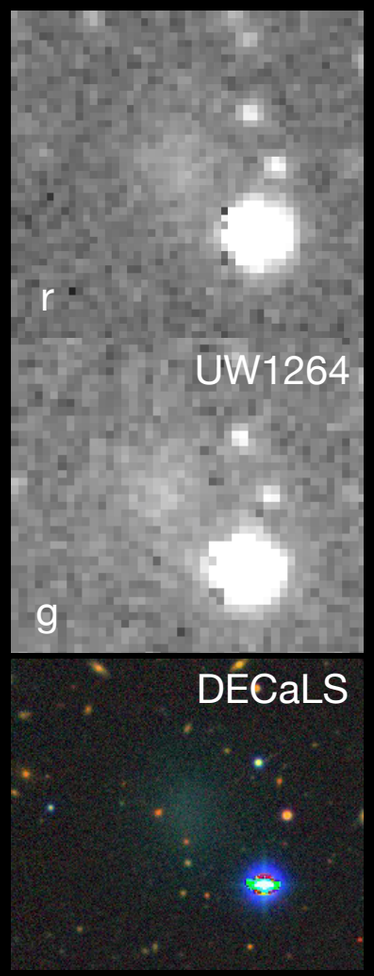


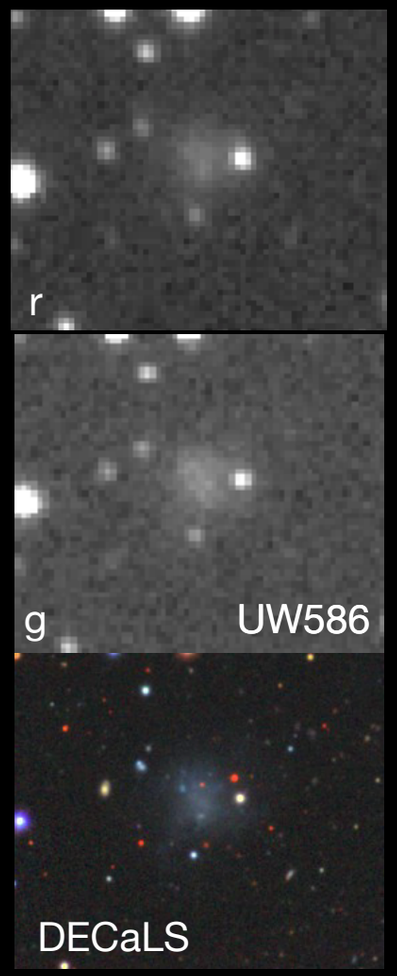


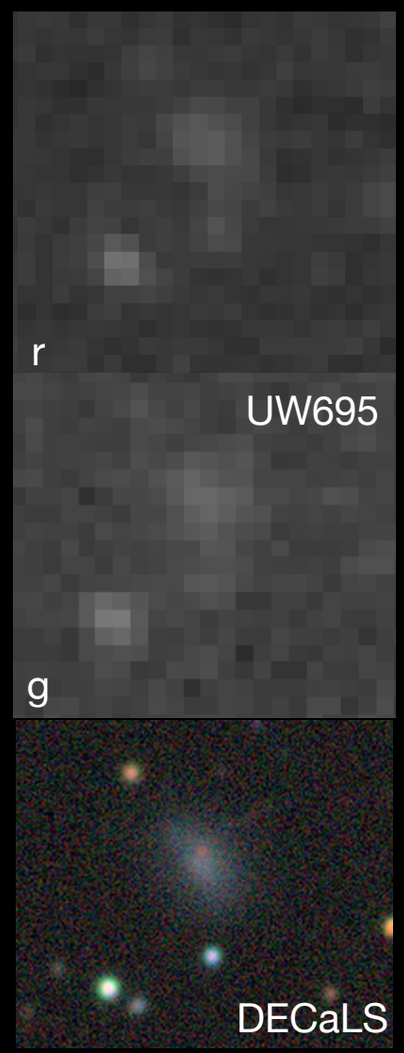


Fuzzy things — UDG candidates

- Mostly in fields with larger host galaxies or clusters
  - Qualitatively consistent with van der Burg+ 2017 and Prole+ 2019
  - Bob has suggested that someone should look into a “possible excess of UDGs around compact groups”







Misc. interesting things

- Of course, in addition to potentially interesting dwarf galaxy candidates and UDGs, we regularly see intracluster light and tidal features

- Because this dataset covers so much of the sky and has great sensitivity to LSB objects, we can also see diffuse cirrus

- This also means that we're suited to detecting things like PNe (at right)

Planetary Nebula