Combining photometry to improve photo-zs and SED fitting

- Hydro Sims – replicate real structures of galaxies (Horizon-AGN – Clotilde)
- SAMS probably not great for this
- Real data HST (CANDELS/GOODS) + HSC etc
- Initially on full-depth LSST
- Test existing algorithms – close links to deblending!
  - TPHOT – Maurillio & Corentin
  - Tractor – Kristina Nyland & Mark Lacy
  - LAMBDAR – Angus Wright (Aaron)
  - Convolve to poorest seeing and do multi-aperture photometry
    - All as a function of ground-based seeing

- Test with limited set of template fitting code (EAZY, LePhare, BPZ, new code)
- Are spectral templates representative of the real galaxies
- Sub-sample simulation on likelihood of having a spectroscopic redshift – is z_p vs z_s better or worse?
- Metrics for photo-zs – follow DESC photo-z metrics (Schmidt et al. in prep)
- Calibration between LSST & Euclid
- Impact for individual galaxies vs total dN/dz