How to make progress?

Questions:
• Nature of sources
  – Morphologies; Gas to stellar mass; Venn diagrams (with arrows); overall population models
  – Dust content?
• Role of ISM and IGM

Observational directions:
• Bigger samples? For what z? L? Solid angle?
• Local analogs? (low-z low-Z em line galaxies? GALEX LAEs?)

Modeling directions:

Upcoming tools and resources
• What will we have
  – More NIR spectrographs,
  – HyperSuprimeCam, VISTA
  – HETDEX, JWST, ELTs, ALMA
  – Reionization from 21cm? GRBs? Planck?
  – Better models…? How so?
  – What else?
• What would we like?
  – JER: 1 degree NIR imager on 6.5m telescope!
  – Esther: COS++
How to make progress?

Renyue Cen: We want more bright LAEs at high redshift. Also: Increasing resolution in simulations is expensive, due to multiple scatterings.

Esther Hu: If we can get the samples now, we will actually get to study them with JWST.

Eric Gawiser: HETDEX is $30e6 project for z=2-3 LAE science. Zheng effect at this redshift??

James Rhoads: Is Zheng effect consistent with everyone’s z<6 correlation functions?

Molly Peeples: We’ll get gas content info on z=2-3 objects… EVLA? J=1-0 CO for massive galaxies at those redshifts?

James Rhoads + Eric G + Esther Hu + …: Z=0.3 sources … are they good analogs, or are z=4 LBGs better analogs?

Esther Hu: either small objects that put out a lot in the UV, or massive dusty objects.

Zheng Zheng: useful to do rad xfer modelling at level of individual galaxies, at very high resolution…

Verhamme et al in prep?

Combine this also with the IGM results.

Ouchi: Mori et al paper? Mark: they did continuum radiative xfer, but not Lyman alpha.