Questions and comments

C. Steidel:

Diffuse Emission from the CGM of Forming Galaxies

More generally: when we analyse the velocity structures of galaxy emission/absorption, what is the best way to determine the systemic redshift?

D. Erb:

Lya emission and the circumgalactic medium in low mass galaxies

Question: what does the spatial variation of peak flux ratio and peak velocity separation tell us about the density structures and kinematics of the Ly-alpha nebula?

L. Wisotzki:

The circumgalactic medium of high-redshift galaxies as seen with MUSE

There are at least 3 mechanism for producing extended Ly-alpha emission: radiative transfer of Ly-alpha from the central galaxy, Ly-alpha produced from local HII regions (possibly in low-mass undetected galaxies) in the CGM, or fluorescence from photoionizing UV continuum from the central galaxy. Are there observations that can distinguish between these or rule any of them out?

(Also to other speakers) Does the statement “every high-z galaxy has a Ly-alpha halo” also apply to quiescent galaxies?

Does this scattered re-emission of Mg II give you an outflow speed?

The no-redshift evolution of Lya halo size is puzzling as compared to that of host galaxy size. Any explanation?

M. Fossati / M. Fumagalli:

Gas around galaxies at z~2-3: connecting emission and absorption with large surveys

General question: How much of the CGM is contributed by galaxy interactions…?

Can you clarify: the Mg II showed slight patchy, enhancement for group systems relative to isolated systems, but Lyman alpha did not?

M. Prescott:

Mapping Out the Physical Conditions within the Circumgalactic Gas of a Lya Nebula

General question: What is the formal difference between a Lyman alpha blob, Lyman alpha halo, and Lyman alpha nebula?
→ personally I would say that Lya blob and Lya nebula are equivalent (“nebula” just sounds a bit more polished than “blob”), but that Lya halo is a term for extended Lya emission around an obvious source like a quasar.

PRG1 being AGN-powered without an AGN might indicate it's recently turned off - would CLOUDY still be appropriate to model the line ratios then?
More generally, what are the limitations of CLOUDY?

Can flickering AGN/QSOs enhance Lya emission in single objects and overall when integrating across time? And does this affect other MUSE/KCWI observed nebulae?

S. Cantalupo:

Illuminating the IGM with fluorescent Ly-alpha emission

What do you think the prospects are to image the cosmic web in Lyman-alpha away from quasar halos?

How would the small-scale clumped gas model affect the Ly-alpha absorption signal around the quasars? Would the absorption be consistent with typical measured values?

How to distinguish emission from cosmic web filaments at high-z from medium connecting galaxies in a group or in gravitational interaction (e.g see deep GBT + VLA HI21cm images of M81 group published by De Blok+18: HI21cm emission all over the place, connecting M82 with M81 and all the nearby dwarfs on scales of ~100 kpc)?

C. Martin:

Emission Observations of Circumgalactic Gas

Would the multi-component filament model predictions be sensitive to radiative transfer through the modeled density and velocity field?

Which kinematic component generally dominates the kinematics (or does one, or does it vary a lot from system to system)?

S. Gallego:

Detecting the Cosmic Web through Lyman alpha emission (S)

Could a similar experiment be done to constrain the HeII-photoionizing background?

Could the lack of detection in the stack be a problem with MUSE noise correction during reduction? Does stacking MUSE data work in other cases (when all individual frames are non- detections)?
→ Indeed, the meaning of what background is and how to correct for the noise during reduction becomes very important at these SB levels. We have seen an over-subtraction of the halo emission at about 15 arcsec from the galaxy, only visible in stacking analyses. We are investigating how to correct for this effect.

Could the EAGLE data be used to identify characteristics of galaxy pairs preferentially likely to be connected with filaments?
→ We have made the comparison with several observable properties, but besides the clear trend with the galaxy pair distance, the only other significant trend is with the U rest frame magnitude, in which fainter galaxies have a slightly enhanced covering fraction of LLS, most likely due to these galaxy pairs being typically in the nodes of the same filaments.

E. Lofthouse:

MUSE Analysis of Gas around Galaxies and the environment of a candidate Population III remnant at z~3.5 (S)