

Title:

The Baryon Cycle: from the circum-galactic medium to the cosmic web

Abstract:

Galaxy formation is fed by inflows of gas from the cosmic web, counteracted by strong galactic winds, which in concert establish the growth rate of gas and stars within galaxies at all cosmic epochs. A powerful tool to study this so-called "baryon cycle" is offered by absorption lines observed in background quasar spectra. I will describe how Integral field spectroscopy (IFS) observations of quasar absorbers have proven an efficient way of characterising the circumgalactic medium of distance galaxies. I will review future spectroscopic and imaging surveys which will eventually provide fresh clues on how the large-scale structure affects the physical properties of galaxies, likely impacting galaxy formation studies at all cosmic epochs.