

The Transfer of Baryons and Metal through the Circumgalactic Medium Over Cosmic Time

The flow of gas through galactic halos is crucial to the evolution of galaxies, as the nature of such flows can dictate the star formation properties of galaxies and regulate their metallicity. Outflows through the circumgalactic medium (CGM) carry metals away from galaxies (although many may return), while infalling metal-poor gas from the intergalactic medium dilutes the metals in galaxies and provides new fuel for star formation. The nature of the infalling baryons, in particular, is of great interest, but such gas has historically been difficult to identify. I'll review our own and other works that provide strong evidence for low-metallicity gas in the CGM of galaxies, even at low redshift, and show that a significant fraction of all metals produced by a galaxy are ejected into its CGM.