Gas accretion: formation and evolution of disks

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Galaxies have formed and evolved throughout the Hubble time via the acquisition of gas from the environment. In particular, disk galaxies appear to have collected this material at a rate that has not changed much from the early epochs until today. At present, gas accretion appear very elusive to a direct detection as it is not seen at the high column densities probed by HI emission. A tenuous low-column-density circumgalactic medium certainly exists and it may contain a large fraction of the so-called missing baryons but it is not clear whether it is efficiently accreting onto the disks. I review the current observational evidence for gas accretion into disks and discuss some reasons why current state-of-the-art cosmological simulations struggle to be reconciled with the observations. I then present the supernova-driven accretion model, where gas accretion from the environment is stimulated by the ejection of high-metallicity gas outside the galactic disks.