
Metal Absorbers in the Local Universe

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Abstract

Column density ratios from CGM and IGM metal lines are one of the few ways to constrain the ultraviolet background radiation field. Existing studies have been confined to high redshift, with no $z \sim 0$ studies so far undertaken. We study a sample of optically thin, $z \sim 0$, metal line absorbers selected by the strong CIII 977 line and coverage of the Lyman series. We present Voigt profile fits of our 25 systems and photoionization models using several published radiation fields, as well as collisional ionization modeling when the former fails. Our study sheds light on the state of moderate to highly ionized gas in local CGM, as well as independently examines several competing models of the UVB.

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