

Abstract Submitted  
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**Quasar Additional Intrinsic Redshift Mechanism??** C.F. GALLO  
, Superconix Inc — From observations and spectral peculiarities, Quasars have complex “intrinsic” redshift(s) added to Hubble redshift. Different Quasars have variable surrounding cloud of plasma and gases (atomic and molecular). Variable local redshifting ensues from photon energy-loss interactions with surrounding cloud. Two Quasar anomalies are examined. (1) The H:21cm redshift is small compared to larger redshift of higher energy photons, possibly due to Raman redshift since low energy H:21cm photons have INSufficient energy to excite redshifting Raman levels. (2) The hydrogen Balmer lines show an additionally redshifted ( $\sim 1000\text{km/s}$ ) broadened component, possibly due to Raman hyperfine redshift via hydrogen nuclear spin. This extra H:Balmer-type component is NOT present in CIV and MgII lines which have NO nuclear spin. NOTE: Any Raman energy-loss mechanism will effectively redshift the original line, but effectiveness will decrease as line progressively redshifts away from initial value, becoming ineffective with saturated redshift value. This ensues since photon Raman cross-section decreases as initial line redshifts off resonance, with cross-section eventually becoming negligible, consistent with Quasar data.

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