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An Absence of Quenched Dwarf Galaxies in the Field

Wetzel, Tinker & Conroy (2011)



Quenched fraction of central galaxies decreases with stellar mass.

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KITP DwarfGal12



<u>NASA-Sloan catalog</u>: Re-reduction of all SDSS DR8 spectroscopic sources with z < 0.055

 $\label{eq:linear} \begin{array}{l} LMC \ M^{\star} = 10^9 \\ SMC \ M^{\star} = 10^8 \end{array}$

Dwarf galaxies:9500 galaxies between 107 - 109 Msun3000 of these are 'field'Field = 1000 km/s and 1.25 Mpc away from massive galaxy)Quenched = H-alpha < 2 Ang and D4000 > 1.6 Ang



Red Fractions as a Function of Host Distance



4

An Absence of Quenched Dwarf Galaxies in the Field



107

Stellar Mass (M_{sun})

1 out of 3587 field galaxies is quenched below 2 x 10⁹ M_{sun}

An Absence of Quenched Dwarf Galaxies in the Field



90% of dwarf galaxies within 2 r_vir of host.

No objects beyond 4.5 r_vir

HI Gas Fractions

