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Discovery of Extremely Metal-Poor Stars in Milky Way Satellites

CINC 08
KIPAC/Stanford

2008 April 18
Hierarchical Assembly of the Stellar Halo

see also:

Chemical Discrepancy: $[\alpha/\text{Fe}]$


see also:

Chemical Discrepancy Solved: $[\alpha/\text{Fe}]$

see also:

Chemical Discrepancy: $[\text{Fe/H}]$

Ca II Triplet Metallicities


A New Way to Measure Metallicities

Ca II Triplet Metallicities vs. Synthetic Metallicities

see also:


Chemical Discrepancy Solved: [Fe/H]


Extended Luminosity-Metallicity Relation

Via Lactea, J. Diemand, private communication

Chemical abundance discrepancy between dSphs and Milky Way halo seems to be disappearing.

Ca II triplet metallicities are not the only option for medium resolution, low S/N spectra.

First discovery of stars with [Fe/H] < -3 in faint dSphs.

Do they also exist in the more luminous dSphs?

dSph luminosity-metallicity relation holds from $10^3$ to $10^7 \, L_\odot$.

Observed halo metallicity distribution can be reconstructed from mass-metallicity relation for surviving dSphs.