

## The origin of the giant stellar stream of M31 ~ My Neighbor Andromeda ~

Mikito Tanaka (NAOJ), Masashi Chiba (Tohoku univ.), Yutaka Komiyama (NAOJ), Puragra Guhathakurta (Lick Obs, UC Santa Cruz), Masanori Iye (NAO) ce Loving People

We have observed the giant stream (see Fig. 1) in the Andromeda galactic halo using the Subaru/Suprime-Cam to investigate how character does its progenitor galaxy has. It is said that the stream is evidence for the on-going hierarchical formation process and good substance to constrain a galaxy-formation scenario.



Fig. 5. Metallicity distributions. Both distributions show a broad distribution and high-metallicity peak.

The average metallicities (-0.54) are in excellent agreement with those of kinematically selected RGB stars in the stream (Guhathakurta et al. 2006)

[Fe/H]

Bellazzini et al. 2003, A&A, 405, 867 Brown et al. 2006, ApJ, 652, 323 Cote et al. 2000, ApJ, 533, 869 Guhathakurta et al. 2006, AJ, 131, 2497

eference

Ibata et al. 2001, Nature, 412, 49 Pietrinferni et al. 2004, ApJ, 612, 168 Rejkuba et al. 2005, ApJ, 631, 262 Schlegel et al. 1998, ApJ, 500, 525