Conference Poster

A search for distant ly-alpha galaxies with multi-slit windows

Author[s]:
Tran, Kim-Vy

Publication Date:
2003

Permanent Link:
https://doi.org/10.3929/ethz-a-004582381

Rights / License:
In Copyright - Non-Commercial Use Permitted
A Search for Distant Ly-alpha Galaxies with Multi-slit Windows

Kim-Vy Tran, ETH Zurich
S. Lilly, M. Brodwin, & D. Crampton

Abstract  We present results from a search for Ly-alpha galaxies at z=6.5 in the 9150 Å atmospheric window. Utilizing a novel technique that combines multiple long slit spectroscopy with a narrow band filter, we survey with the CFHT 3.6 m an effective area of 8 square arcmins to a 5 sigma flux limit of 2.5e-17 erg/s/cm². From this initial survey, we isolate 11 emission line objects that are all confirmed to be lower redshift interlopers with photometric redshifts from deep UBVRIZ imaging. We also describe the large program we have begun using this method at the VLT to survey Ly-alpha galaxies at 3<z<4 and z=6.5 over a cumulative area of 130 and 20 square arcmins respectively. Mapping the distribution of Ly-alpha galaxies at these redshifts will provide better estimates of the auto-correlation clustering of galaxies, the Ly-alpha luminosity function, the epoch of reionization, and the properties of the very first galaxies.