

Poster at Splinter Meeting

Splinter J

CHARACTERISTICS OF EXTREMELY BLUE STARBURSTING GALAXIES
AT INTERMEDIATE REDSHIFTS SELECTED BY NARROW-BAND
IMAGING WITH THE LBT LBC

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According to the hierarchical model of galaxy formation, low mass galaxies are the building blocks of the universe. However, since detailed studies of these objects are difficult at high redshifts, more nearby proxies are required. There are indications that star-formation in dwarf galaxies can be suppressed at high redshifts due to photoheating by the strong UV background radiation. At intermediate redshifts, these galaxies would still be quite young when undergoing bursts of star-formation. Some objects fitting this description have been found in recent years, providing excellent nearby proxies for the first galaxies. They emit strong emission lines, such as $H\alpha$, [O III], $H\beta$, and [O II] in the optical and C III] and He II in the UV. We perform narrow-band imaging with the LBT LBC in the F972N20 filter and broad-band imaging in the U-band on the Subaru/XMM-Newton Deep Field (SXDF), surveying different redshift slices than previous surveys. We select these galaxies by their narrow-band excess due to their strong emission lines. Using archival data from GALEX, Subaru, UKIDSS, and Spitzer we fit spectral energy distributions and derive the redshifts for the selected sample. Out of a sample of 125 emission line galaxies about 40 are $H\alpha$ emitters at $z \approx 0.48$, 34 [O III]+ $H\beta$ at $z \approx 1$ and 14 are [O II] emitters at $z \approx 1.6$. 24 galaxies in our sample show extremely blue rest-frame colours ($U - V \leq 0.8$ and $V - J \leq 0.2$) and are therefore very good candidates for very low metallicity starburst galaxies. Here we will present the characteristics of our sample galaxies, like star-formation rates and masses. Our sample is scheduled for follow-up spectroscopy with the LBT Multi-Object Double Spectrograph (MODS) this fall.