

Latest Results from the MOSDEF Survey: Case for Multi-object Infrared Spectrograph on ELT” (Bahram Mobasher)

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We have now completed the MOSFIRE Deep Evolution Field (MOSDEF) Survey of 1500 galaxies in CANDELS fields at cosmic “high noon”(i.e., $1.4 < z < 3.8$). A total of 46 observing nights on Keck/MOSFIRE were allocated to this program to obtain near-infrared spectroscopy of these galaxies (selected in H-band). Using MOSDEF, we have studied rest-frame optical diagnostic lines and their relation with the physical parameters

in galaxies. In this talk I will review the latest scientific results from the MOSDEF, including Stellar Mass-SFR- Metallicity relation at high redshift, evolution of the BPT

diagram, dynamics of galaxies and their relation with the physical parameters and the evolution of the Equivalent Widths in galaxies with redshift. Using the MOSDEF results

I will build a scientific case for the need for an infrared multi-object spectrograph on the Extremely Large Telescopes.

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