

there are a few regions which show an unexpected behavior. Most interesting is a surprisingly high density of galaxies with redshifts near 3.36 within a few arc sec (projected distance ≤ 60 kpc) of the bright QSO observed at this redshift. It may indicate that this QSO is located in an exceptionally dense protocluster at this redshift.

ONGOING AND FUTURE WORK

In this report we described a few examples of scientific results obtained so far from the FDF. Many studies using FDF data are still in progress and some of the data (such as the stellar content of the FDF and observations obtained outside the optical range) have hardly been touched. Among the exciting ongoing investigations is a more thorough study of cosmic chemical evolution using medium resolution spectra of FDF galaxies (obtained with the VPH grisms of FORS2) and improved synthetic spectra. Moreover, a significant effort is being made to extend the FDF galaxy sample to redshifts $z > 5$. In this range different search techniques have to be used since such objects show no flux in most of the FORS broad-band filters (except for a weak signal at *I* in some cases). Using narrow-band observations in deep-red filter bands we were able to identify a sample of very promising candidates for such very high redshift galaxies in the FDF. However, these objects still require a spectroscopic confirmation. Hence there is still much work to be done in the FDF, and there remains a significant potential for more reports in *The Messenger*.

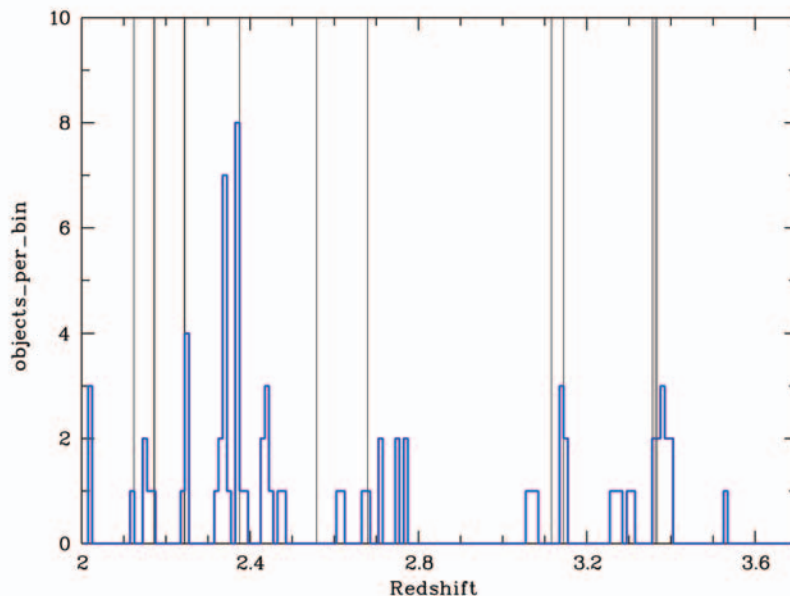


Figure 10: Histogram of the redshift distribution of spectroscopically observed FDF galaxies in the redshift interval $2 < z < 3.7$ (blue line) and the redshift positions of the metal absorption systems of the FDF quasar Q0103-260 observed in this redshift range (black vertical lines).

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Revisiting the Orion Nebula

Wide Field Imager Provides New View of a Stellar Nursery (ESO PR Photo 20/04)

An international team of astronomers, led by Massimo Robberto (European Space Agency and Space Telescope Institute), used the Wide Field Imager (WFI), a 67-million pixel digital camera that is installed at the ESO/MPG 2.2m telescope at La Silla, to obtain very deep images of this region. The image shown is a false-colour composite of all of the images obtained in *B*, *H* α , [OIII], and [SII] where each waveband was associated to a given colour: *B* to blue, [OIII] to green; *H* α to orange, and [SII] to red. The field of view covers $34' \times 33'$. North is up and East is to the left. Among others, these observations allow the astronomers to measure the rates of mass that falls onto the young stars and to determine if it depends on the position of the stars in the cluster. If this were the case, it would indicate that the final stages of star formation are affected by the onset of ionizing radiation from the most massive stars. The astronomers also obtained images of the Orion Nebula in several narrow-band filters corresponding to emission lines - hydrogen (*H* α), oxygen ([OIII]), and sulphur ([SII]) - enabling them to probe the morphology of the nebula in these prominent lines.