Multi-Object Spectroscopy with MUSE

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Abstract

Since 2014, MUSE, the Multi-Unit Spectroscopic Explorer, is in operation at the ESO-VLT. It combines a superb spatial sampling with a large wavelength coverage. Every data-cube consists of 90,000 image-sliced spectra and 3000 monochromatic images.

By design, MUSE is an integral-field instrument, but its field-of-view and large multiplex make it a powerful tool for multi-object spectroscopy too.

During the last semester, the observing programmes with MUSE have commenced, with targets ranging from distant galaxies in the Hubble Deep Field to local stellar populations, star formation regions and globular clusters.

This poster presents the key features of the MUSE instrument and the capabilities of the complex data reduction software. Examples are given, how multi-object spectroscopy for hundreds of continuum and emission-line objects can be achieved within a MUSE field, without the classical need for any target pre-selection.

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