The MUSE 3D view of the Hubble Deep Field South

Jarle Brinchmann[1], Roland Bacon[2], MUSE collaboration

[1] *Leiden University*
[2] *CRAL, Lyon*

Abstract

We present the results of an ultra-deep spectroscopic survey of the Hubble Deep Field South using MUSE, the new panoramic integral field spectrograph for VLT. The data cube resulting from the 27 hours of integration covers one arcmin2 field of view at an unprecedented depth with a 5sigma line flux limit of 1.5e-18 cgs, increasing the number of redshifts known in the region by an order of magnitude, up to 189 redshifts with 26 Ly-a emitting galaxies that are not detected in the HST images down to magnitude 29.5. We will describe the overall sample properties and demonstrate the power of 3D spectroscopy to disentangle sources to disentangle sources confused by ground-based image quality. The field of view MUSE also allowed us to detect 19 groups within the field and we will discuss the promise of MUSE for future deep surveys of the Universe. Note: The data cube and associated data products will likely be released to the wider community by the time of the meeting.