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Strong Electromagnetic Fields and Neutron Stars

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## Galaxy Evolution observed with MOS at the E-ELT

*Monday 11 May 2015 14:00 (40 minutes)*

The European Extremely Large Telescope (E-ELT) is the current 1st priority flagship project of European ground-based Astronomy in the optical and NIR. After completion in 2024, the E-ELT will be the most advanced and most sensitive facility for diffraction limited imaging and spectroscopy with a giant aperture for the next decades to come. MOSAIC is a conceptual idea to exploit this sensitivity for multiobject spectroscopy (MOS), covering the full range of E-ELT science and including input from a broad cross-section of astronomers across the ESO partner countries. I will highlight cases relating to studies of high-redshift galaxies, galaxy evolution, and stellar populations. A general requirement is the need for two observational modes to best exploit the large ( $\geq 40$  arcmin<sup>2</sup>) patrol field of the E-ELT. The first mode ('high multiplex') requires integrated-light (or coarsely resolved) optical/near-IR spectroscopy of  $>100$  objects simultaneously. The second ('high definition'), enabled by wide-field adaptive optics, requires spatially-resolved, near-IR of  $>10$  objects/sub-fields.

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