

MOSAIC: PROPOSAL FOR A MULTI-OBJECT SPECTROGRAPH AT  
THE EUROPEAN EXTREMELY LARGE TELESCOPE

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In line with its instrumentation plan, ESO has issued a call for proposals for a phase A study of a Multi-Object Spectrograph for the European-Extremely Large Telescope (E-ELT MOS). In response, a European-Brazilian consortium, with participation from Germany, proposes MOSAIC, an instrument that is based on two previous evaluated concepts, EAGLE and OPTIMOS-EVE. Several observing modes are foreseen, either with a high multiplex or with high-definition, enabled by multi-object adaptive optics. Modular spectrographs cover both, the optical and the near-infrared wavelength regions. The light-gathering power of the 39m E-ELT and its spatial resolution, combined with MOSAIC, will enable the sample sizes necessary to tackle some of the key scientific drivers of the E-ELT project.

The potential applications for MOSAIC cover almost every aspect of astronomy, from extra-solar planets, stellar populations in nearby galaxies, AGN physics, to high-z galaxies, first quasars and spectroscopic follow-up observations of targets that will be discovered with the James Webb Space Telescope.

The MOSAIC consortium is led by the Observatoire de Paris (GEPI), with German partners being involved scientifically and technically. Their main scientific interests include the inter- and circum-galactic medium, resolved stellar populations, galactic archaeology, planetary nebulae and planet formation studies. The technical work package allocated to AIP features the fibre-link between the focal plane of the telescope and the various spectrographs.

This poster will present the current state of the MOSAIC project as the consortium prepares for the phase A study, expected to start in 2016.