RevMexAA (Serie de Conferencias), **29**, 144–144 (2007)

EAST: THE EMIR ASSOCIATED SCIENCE TEAM

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EMIR Associate Science Team (EAST) is a scientific group in charge of developing an observing program complementary to that of GOYA, which might serve as a testing bed for all the kinds of science that EMIR can do. Hence EAST puts the emphasis on developing proposals which will exploit the most diverse capabilities of the spectrograph.

EMIR (Espectrógrafo Multiobjeto Infrarrojo) is a common-user, wide-field, $0.9-2.5\,\mu m$ near-infrared camera-spectrograph for the GTC, which boasts a reconfigurable cryogenic multi-slit mask robot (see Garzón et al. in these proceedings). GOYA and EAST are the two projects which are preparing the science that EMIR can perform. While the former began operations with the very conception of EMIR many years ago and is now already in a mature state of evolution, EAST is a relatively new group founded in 2004. It currently consists of over 50 astronomers, belonging to different institutions, and whose scientific interests cover a wide range of topics, from low-mass stars to extragalactic systems.

Simply put, EAST is about bringing the potential observers and the EMIR responsibles closer together. At the meeting point, EAST observers take advantage from (1) early knowledge of the instrument status, performance and functionalities (training in the EMIR observing modes, etc.); (2) from engaging in observational programs with a world-class facility; and (3) might influence how EMIR is built and calibrated. On the other hand, apart from being better introduced to the scientific community, EMIR might benefit from the contact with users by incorporating new features to the instrument; testing the versatility of our instrument; and letting the EMIR technical group gain new astrophysical insights.

At a first level, EAST identified the scientific areas of interest not overlapping with GOYA ("Probing the early universe at z beyond 1.5 in the same parameter space in which we have traditionally seen the local Universe.", see Balcells et al., these proceedings), and around those it fostered collaboration amongst its members to design scientific proposals and prepare preliminary observing plans. After discussion at EAST meetings, successful proposals will benefit totally or partially from guaranteed time. So far, a total of 16 proposals have been submitted covering different domains: 2 on binary stars ("Searching for brown dwarf-like secondary stars in CV", "Spectroscopy of highly obscured X-ray binaries"); 1 on solar-type stars ("The origin of a solar system"); 2 on extrasolar planets / brown dwarfs ("Spectroscopy of isolated planetary-mass objects & low-mass brown dwarfs in orionis"; "Spectroscopy of brown dwarf candidates in distant young open clusters"); 2 on massive stars ("Massive Stars in massive obscured Galactic clusters"; "The stellar content of young clusters containing massive objects"); 2 on structure of galaxies ("Spectroscopy of inner Galaxy sources"; "The truncation curve of the stellar disc in spiral galaxies"); 2 on stellar populations of early type galaxies "Stellar populations in nearby elliptical galaxies"; "Constraining the evolution of early-type galaxies in clusters with the CaII triplet"); 2 on starburst galaxies ("Mapping of blue compact dwarf galaxies: starburst vs old stars"; "Super galactic winds in the local universe"); 1 on AGN ("Understanding AGN fueling mechanisms and physical conditions"); and 2 on NIR follow-up of high-z objects ("Spectroscopic NIR follow-up of FIR and submm extragalactic surveys"; "Luminous IR galaxies and submm galaxies at z 2.4"). In terms of observing modes, there are proposals for the three MOS, LS and imaging configurations. Some have special needs, such as certain narrow-band filters or a lower resolution, higher spectral-range grism.

At this point we note that there is a lack of solar system astronomy proposals. If our mission is to boldly go where no-one has gone before, we want to test the full versatility of our enterprise. Therefore, *EAST strongly encourages the submission of solar-system proposals*, and also of others which make ingenious use of the instrument, in order to help lifting the instrument's achievements to new heights.

To obtain news on the forthcoming Third EAST Meeting scheduled for early-2007, plus updated information concerning EAST and EMIR, please visit: `http://www.iac.es/project/emir/emir.html`.

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