

BEGIRA: Basque Educational Gate for Interactive and Remote Astronomy

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Abstract

The BEGIRA project consists in making available the 1.23 m Calar Alto (CAHA) telescope to students of the University of the Basque Country (UPV/EHU). The project is designed in such a way that undergraduate and graduate students of the *Máster oficial en ciencia y tecnología espacial* of the UPV/EHU can control remotely the 1.23 m CAHA telescope. The instrument used is the DLR camera, which based on its large field of view and high sensitivity, allows observations ranging from nearby solar system bodies to remote gamma-ray bursts. The students are also responsible of reducing and analyzing the resultant DLR data.

The observations are conducted from the Aula Espazio Gela located at the Faculty of Engineering at Bilbao. The students can control remotely *i*) the 1.23 m telescope, *ii*) the DLR camera and *iii*) the autoguider. They have also continuous access to the observatory weather station, webcams, astrometric tools and the CAHA archive, so they can actually see in real-time what they are doing. The operations can be visualized by two light cannons which display the telescope and camera controls for the audience. In case of any emergency the students are backed up by the CAHA staff.

The BEGIRA project shows the potential that remote control of professional telescopes has for educational purposes. As proven by the several discoveries carried out under BEGIRA, the educational activities can be complemented with cutting-edge research activities carried out by Master Students. In the coming years we plan to continue with the BEGIRA project. More information can be found at <http://www.ehu.es/aula-espazio/begira/>.