

Deep Optical and Near-IR imaging in the ELAIS areas

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ELAIS (European Large Area ISO Survey; Oliver et al, 2000) is a project that has surveyed about 13 square degrees of high latitude sky in the north and south hemispheres using the ISOCAM and ISOPHOT cameras on board of the ISO satellite. Observations at 6.7, 15, 90 and 175 μm have been obtained. These observations together with the extensive followup programs carried out in these regions have made the ELAIS fields excellent areas for multiwavelength observations. These include radio observations using VLA, optical and near-IR, sub-mm and X-rays using Chandra and XMM. We report here the results of our deep optical and near-IR observations on the centers of the northern areas N1 and N2, regions that will be covered also by deep Chandra and XMM observations. We have obtained g' , r' , i' and H deep images with limiting magnitudes of $g'=3D26.7$, $r'=3D26.2$, $i'=3D25.0$ and $H=3D20.2$ (3σ detection limit) covering two areas of $30' \times 30'$ arcmin using the Wide Field Camera (WFC) and the Cambridge Infrared Survey Instrument (CIRSI) both on the Isaac Newton Telescope (INT) in the Observatorio del Roque de los Muchachos, Canary Islands. These data are extremely useful to identify the faint optical counterparts of the ISO, radio and X-ray sources.