OSIRIS-FIRST Scientific Program

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OSIRIS (Optical System for Imaging and low/intermediate-Resolution Integrated Spectroscopy) will be one of the Day One instruments for the Spanish 10.4m telescope GTC at La Palma. One of the scientific projects to be addressed with OSIRIS is the study of the galaxy population in clusters of galaxies at high redshift. Part of the cluster sample could be selected by means of the Sunyaev-Zel'dovich effect as provided by the Gran Telescopio Mexicano (GTM). The optical survey will be complemented using other future facilities in the NIR such as the Espectrógrafo Multiobjeto InfraRojo (EMIR), also in the GTC. The interaction with FIR (FIRST) and mm/submm (GTM, ALMA) instruments will complement the view. The spectroscopic and photometric capabilities of PACS and SPIRE covering the spectral range 60 - 670 µm, will be both feed with this survey and will allow us to extend it. The combination of the OSIRIS and FIRST capabilities will provide a deep insight into the evolution of cluster galaxies. We present the OSIRIS Scientific Program, their goals and future follow-up and extension using FIRST.