# Scorpius-Centaurus Project: Target selection and Spectroscopy observations

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We present the observations of the Lower Centaurus Crux region through the multi objects spectroscopy of CTIO 4m telescope to reveal early M type population. This observations will allow us to study the star formation history of Scorpius Centaurus region and possible correlation with young stars around the sun. While our observing targets are selected only through the color-magnitude diagram, additional information of proper motion make more efficient selection of candidate members in extended regions. In this respect, we carefully test the reliability of selection method of candidates through the color-magnitude (Ks vs. B-Ks) and color-color (J-H vs. H-Ks) diagrams as well as proper motions of the confirmed members in Upper Scorpius.

# A Compact Imaging Spectrometer (COMIS) for the Microsatellite STSAT3

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STSAT-3, a ~150kg micro satellite, is the third experimental microsatellite of the STSAT series designated in the Long-Term Plan for Korea's Space Development by the Ministry of Science and Technology of Korea. The STSAT-3 satellite was initiated in October 2006 and will be launched into a lower sun-synchronous earth orbit (~700km) in 2010.This paper presents a brief introduction of STSAT-3 and also introduces its secondary payload, i.e. COMIS, a compact imaging spectrometer, which was inspired by the success of CHRIS, a previous PROBA payload. COMIS takes hyper-spectral images of 30m/60m ground sampling distance over a 30km swath width. The number of bands is selectable among 18 or 62. COMIS takes hyper-spectral images in two different modes: a) Pushbroom and b) multi-directional observation. The payload will be used for environmental monitoring, such as in-land water quality monitoring of Paldang Lake located next to Seoul, the capital of South Korea.