

1) Title:

Galaxy Evolution as Probed by 2D Spectroscopy Studies

2) Host names and host institutes:

Lei Hao at Shanghai Astronomical Observatory and Guillermo C. Blanc at Universidad de Chile

3) Keywords:

Galaxies, Interstellar Medium

4) Project Abstract:

Spatially resolved 2D spectra of nearby galaxies taken with the Integral Field Unit (IFU) are powerful tools to study galaxy evolution. IFUs with large field-of-view (FOV) and large fibers, such as the VIRUS and VIRUS-P, have unique strengths in detecting low-surface brightness regions of galaxies. China is building its own such IFU, named China Lijiang IFU (CHILI), following the principals of VIRUS. Successful applications are expected to get involved in various IFU observations, where Professor Lei Hao from Shanghai Astronomical Observatory and Professor Guillermo C. Blanc from Universidad de Chile have strong collaborations. These IFU observations include but not limited to:

1) VENGA. VENGA is an IFU survey of 30 nearby disk galaxies conducted by VIRUS-P. Professor Blanc is the PI of VENGA, and professor Hao is an active participant.

2) CHILI. CHILI will be China's first IFU instrument, mounted on the Lijiang 2.4m telescope. It is expected to be commissioned at early of 2016. Professor Hao is the PI of CHILI, and Professor Blanc is an active participant.

3) MaNGA. MaNGA is one of the SDSS-IV projects. Both Professor Hao and Blanc are participants of the survey.

Our research interests in these IFU observations are broad, including AGN fueling and feedback; the evolution of low-surface brightness galaxies; edge-on galaxies; star-formation processes of galaxies; ISM of galaxies, etc. Follow-up observations with IFUs of higher spatial resolution and spectral resolution on larger telescope are expected.