



Contribution ID: 110

Type: Oral Presentation

Galaxy Evolution in the Local Universe: Studying the Complete Local-Volume Groups Sample (CLOGS)

Thursday, 29 July 2021 11:30 (15 minutes)

More than half of all galaxies within the local Universe are found within group environments. Therefore, galaxy groups are excellent laboratories for studying galaxy evolution in the local Universe. The Complete Local Volume Groups Sample (CLOGS) is the first statistically complete galaxy group survey in the optical, X-ray and radio bands, consisting of 53 galaxy groups and 1427 member galaxies in total. The basic properties of the member galaxies, such as their morphologies, star formation rates, stellar masses and radio emission have been determined and studied with regards to their unique group environments. Exciting statistical relations between the properties of the member galaxies and their group environments have been found; such as trends in star formation that relate to each group's dynamical age, X-ray halo and radio emission from their brightest group ellipticals (BGEs). As a continuation of this study, a detailed optical spectroscopic study of these BGEs using data obtained on SALT (Southern African Large Telescope) is currently underway. The determined statistical relations and latest spectroscopy results will be presented.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

MSc

Primary author: Mr STEVENS, Clinton (Centre for Space Research, North-West University)

Co-authors: Dr KOLOKYTHAS, Konstantinos (Centre for Space Research, North-West University); LOUBSER, Ilani (Centre for Space Research, North-West University)

Presenter: Mr STEVENS, Clinton (Centre for Space Research, North-West University)

Session Classification: Astrophysics

Track Classification: Track D1 - Astrophysics