Contribution ID: **30** Type: **not specified**

VST-GAME: Galaxy Assembly as a function of Mass and Environment with VST

Wednesday 6 June 2018 17:35 (20 minutes)

VST-GAME is a VST survey in four bands (u', g', r', i') to perform a unique wide field coverage (20x20 Mpc^2 at z=0.4) of 12 massive galaxy clusters, at 0.2<z<0.6 (z median ~0.4), and reaching the limiting magnitude of M*+6, (i.e. 10^9M⊠ at z=0.4). The main goal is to determine the relative importance of different cluster assembly processes in driving the evolution of galaxies as a function of mass and environment. These data will allow the investigation of galaxy populations examining the entire cluster infall regions, with the depth needed to reach stellar mass regimes where model predictions are in tension with the data. Moreover, the proposed area/filters/depth will also allow legacy science, e.g. searching for high-redshift galaxies and candidate AGN and QSOs. This survey is part of a concerted effort which includes NIR observations of VISTA Public Survey programme (G-CAV, P.I.: M. Nonino) and a massive spectroscopic campaign already in hand (e.g., CLASH-VLT, P.I.: P. Rosati) and ongoing. So VST-GAME data, together with the ancillary data already available, will result in a transformative self-consistent dataset, to test and drive the development of galaxy evolution models.

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