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Presentation Requested: oral

Category: Role of AGN in Galaxy Evolution in the ALMA Era

Question: Is AGN feedback more, less or equally important as stellar feedback? Is this dependent on the galaxy types and how? What is the role that ALMA and other new facilities like NuStarr play in addressing this question?

Star formation and AGN feedback in central cluster galaxies

We are using the Southern African Large Telescope (SALT) to measure the (sometimes weak) emission lines in brightest cluster galaxies (BCGs) in unprecedented detail. We focus on star-forming BCGs, and have existing host cluster data from the X-ray regime available, but lack the wide-wavelength, deep emission-line data that will allow us to test models for the dominant ionization processes, excitation sources, morphology and kinematics of the gas. This, combined with the multi-wavelength data, will form a complete view of the different phases and how they interact in the processes of star formation and feedback detected in central galaxies in cooling flow clusters.