NEW TOOLS FOR THE TRACING OF ANCIENT STARBURSTS: ANALYSING GLOBAL CLUSTER SYSTEMS USING LICK INDICES

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INTRODUCTION: There is one of the most intriguing questions of galactic astronomy: how do galaxies with extreme starbursts at present form? One way to approach this question is by using the integrated light of a galaxy's (nearly) instantaneous star formation rate (SFR). In this paper, we use SFRs derived from the SEDs of Local Group (LG) and nearby galaxies to identify galaxies with extreme SFRs. We then use these SFRs to estimate the age and metallicity of the stars in these galaxies. We come to the conclusion that galaxies with extreme SFRs tend to have young, metal-rich stars.

ANALYSING THE INTEGRATED LIGHT OF A GALAXY

By combining star formation models with the SEDs of galaxies, we can estimate the age and metallicity of the stars in a galaxy. This is done by using the integrated light of a galaxy to estimate its instantaneous SFR. We then use this SFR to estimate the age and metallicity of the stars in the galaxy. We find that galaxies with extreme SFRs tend to have young, metal-rich stars.

ANALYSING GLOBAL CLUSTER SYSTEMS

LICK INDICES

Lick indices are used to estimate the age and metallicity of stars in a galaxy. Lick indices are ratios of the intensities of certain emission lines to the intensity of a reference line. These ratios are used to estimate the age and metallicity of the stars in a galaxy. We use Lick indices to estimate the age and metallicity of the stars in galaxies with extreme SFRs.

REFERENCES


OUTLOOK

We plan to expand our analysis of galaxies with extreme SFRs to include galaxies in the Local Group and other nearby galaxies. We also plan to use Lick indices to estimate the age and metallicity of stars in galaxies with extreme SFRs.