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Brightest Cluster Galaxies - Ages and metallicities of stellar populations

Thursday, 14 July 2011 12:30 (15 minutes)

<p>The aim of this project is to study the stellar populations, and thereby evolution and star formation histories of brightest cluster galaxies (BCGs). In particular, I will determine if a Single Stellar Populations (SSP) or Composite Stellar Populations (CSP) provides the most significant fit for the BCGs using high signal-to-noise ratio (S/N), long-slit spectra, obtained on the Gemini and WHT telescopes. By using the ULySS software package, the data will be fitted against the Pegase. HR and Vazdekis/Miles stellar population models to simultaneously derive the SSP equivalent ages and metallicities of the BCGs. Furthermore the stellar populations will be decomposed into two or more components, and the chi square ($\chi 2$) value for each component is used to determine whether a SSP or CSP represents the BCGs most accurately. We find that both young and old stars are present in the stellar populations of these BCGs, and those BCGs, therefore show surprisingly diverse star formation histories.

Level (Hons, MSc,
   PhD, other)?

MSC

Consider for a student
   award (Yes / No)?

Yes

Would you like to <br> submit a short paper <br> for the Conference
 Proceedings (Yes / No)?

Yes

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