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Undressing M87 by Exposing its Most Private Globulars

Mireia Montes[1,2]†, José A. Acosta-Pulido[1,2], M. Almudena Prieto[1,2], and Juan A. Fernández-Ontiveros[3]

[1] Instituto de Astrofísica de Canarias (IAC), Vía Láctea s/n, La Laguna, E-38200, Spain
[2] Departamento de Astrofísica, Universidad de La Laguna, La Laguna, E-38207, Spain
[3] Max-Planck-Institut für Radioastronomie (MPIfR), Bonn, D-53121, Germany

Abstract. We present a multiwavelength photometric analysis of the innermost (3×3 kpc^2) Globular Clusters (GCs) of M87. Their Spectral Energy Distributions (SEDs) were built with J and K_s imaging obtained with NaCo at the VLT, along with HST UV-optical archival data. Using both Galatic GC templates and stellar population models, we derived ages (> 10 Gyr) and metallicities ([Fe/H]~ -0.7) for these clusters (e.g: Cohen *et al.* 1998). These GCs have lower metallicities than its host galaxy. This agrees with the idea that the GC population formed earlier than the bulk of the stars.

Keywords. galaxies: star clusters, galaxies: infrared

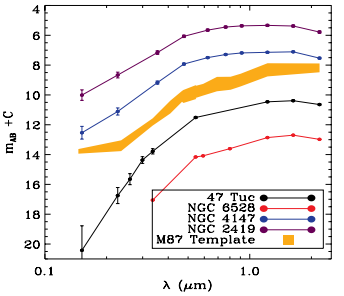

Figure 1. SEDs for MW globulars. The orange polygon is the average SED for M87 GCs.

Our SEDs cover a spectral range from 1400 Å to 2.2 μm. All the globular clusters have very similar properties. We derived SEDs of Galactic GCs in order to make a direct comparison with our GCs. M87 GCs and 47 Tuc are similar in the optical-IR ranges. SSP model fitting (Charlot & Bruzual 2007) lead to the same conclusions. UV fluxes show the presence of Extreme Horizontal Branch stars (Sohn *et al.* 2006). The mean derived metallicity for the GC system (Z$\sim$ 0.004) is lower than its host galaxy (Z$\sim$ 0.03, Kuntschner *et al.* 2010).

More information at www.eso.org/sci/meetings/2012/ESOat50/videos/20120905_mmontes.html

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† E-mail: mmontes@iac.es (MM)