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# Probing the near-IR flux excess in young star clusters

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We report the results of a recent study of young star clusters (YSCs) in luminous blue compact galaxies (BCGs). The age distributions of the YSCs suggest that the starburst episode in Haro 11, ESO 185-IG13, and Mrk 930 started not more than 30-40 Myr ago. A peak of cluster formation only 3 - 4 Myr old is observed, unveiling a unique sample of clusters still partially embedded. A considerable fraction of clusters (30 - 50%), mainly younger than 10 Myr, shows an observed flux excess between 0.8 and 2.2 micron. This so-called near-infrared (NIR) excess is impossible to reproduce even with the most recent spectral synthesis models (that include a self-consistent treatment of the photoionized gas). We have used these YSCs to probe the very early evolution phase of star clusters. In all the three host galaxies, the analysis is limited to the optically brightest objects, i.e., systems that are only partially embedded by their natal cocoons (since deeply embedded clusters are probably too faint to be detected). We discuss possible explanations for this NIR excess, in the context of IR studies of both extragalactic young star clusters and resolved massive star forming regions in the Milky Way and in the nearby Magellanic Clouds.

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