

From star clusters to field populations: survived, destroyed and migrated clusters



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The EWOCS view of super massive star clusters

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The EWOCS (Extended Westerlund 1 and 2 Open Clusters Survey) project has the objective of studying star and planet formation, and early stellar evolution, in super massive star clusters (SSCs). With a mass in excess of 10^4 solar masses, the very few SSCs known in the Milky Way represent the most accessible examples of starburst regions, which are very rare in our Galaxy today, but common in galaxies experiencing epochs of intense star formation. These regions are characterized by very high stellar density, and they are dominated by a rich and compact ensemble of massive stars that produce an environment dominated by energetic radiation and particles. With a distance of 3.87 kpc and 4.5 kpc, respectively, the Westerlund 1 and 2 clusters are the closest SSCs to the Sun, and thus the best targets to study how stars and planets form in the most energetic star forming environment known. In this talk, I will present the motivations, status and the preliminary results of the EWOCS project, which is mainly based on a 1Msec Chandra/ACIS-I Large Project and a cycle 1 JWST observation of Westerlund 1, a cycle 2 JWST observation of Westerlund 2, and other data at high spatial resolution of the two clusters.”

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