

The chemical evolution history of the Small Magellanic Cloud (SMC) is indeed complex and has been a subject of debate for a long time due to various factors such as its slow star formation rate (SFR), bursts triggered by interactions with the Large Magellanic Cloud (LMC), and metallicity dispersion among its cluster population. In order to better understand this history, researchers have adopted a step-by-step strategy, focusing on specific regions of the SMC.

The west halo region, containing the oldest and most metal-poor stellar populations, is examined in my previous publication (Saroon et al. 2023). The study identifies a clear age-metallicity relation with a tight dispersion in the west halo region, revealing a significant 0.5 dex metallicity dip about 6 billion years ago, for which the most plausible explanation appears to be a major merger event that accelerated the star formation rate following the event.

Despite the low number statistics Parisi et al. 2023 points out that the Southern Bridge (SB) and Northern Bridge regions clusters of the SMC may have undergone distinct chemical enrichment histories. In order to explain chemical evolution of the SMC, completing a comprehensive analysis of star clusters in various SMC regions is essential.

Our study on the SB clusters aims to derive the most up-to-date and complete AMR of the SMC clusters on the SB region to solve another piece of the SMC chemical evolution puzzle. The preliminary results shows that the chemical evolution can be explained by a major merger scenario, but with a different mass for the merger and more enhanced star formation than the west halo region.