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Type : **Poster**

Tracing Star Formation Histories in the Local Neighborhood using Young Stellar Associations

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Young stellar associations provide an opportunity to investigate the recent star formation history of the Solar Neighborhood by identifying groups of stars that share similar ages and kinematic properties. In this work, I investigate two nearby young stellar associations, SCYA 75 (Ophiuchus Southeast) and SCYA 103 (Scorpius-Centaurus), to explore whether their stellar populations show evidence of differences in their formation histories. I used a local k-neighborhood search to identify nearby stellar members and characterize the local stellar populations associated with each region. I then compared the age distributions and statistical properties of the identified populations to investigate similarities and differences between the two associations. By examining the ages of stars in these neighboring regions, this study aims to provide insight into the timing and structure of recent star formation in the local solar environment. This approach demonstrates how spatially localized stellar population searches can be used to connect individual young associations to the broader star formation history of the Solar Neighborhood.

Did you give a contributed talk at CASCA 2026?

No

If you are selected for a poster, would you be interested in giving a short flash talk on your work?

Yes

What is your career level?

Undergraduate

Which keyword describes the area of focus of this talk?

Stars & stellar clusters

Primary author(s) : Ms JASSAL, Sargun (University of Toronto)

Presenter(s) : Ms JASSAL, Sargun (University of Toronto)

Session Classification : Exoplanets & Stars