

## Terzan 5: a site of recent star formation in the Galactic Bulge

*Thursday, 21 September 2017 13:00 (15 minutes)*

Two distinct populations with very different iron abundances, spanning a huge metallicity range ( $\sim 1$  dex) have been discovered in Terzan 5 (a globular cluster-like stellar system in the Galactic bulge). Thanks to the combination of AO-corrected ground-based observations and ultra-deep HST images, we have finally distinguished two MS-TO points, thus providing the age of the two populations: 12 Gyr for the most metal-poor component, and just 4.5 Gyr for the most metal rich one. Altogether these pieces of evidence demonstrate that Terzan5 is (1) the remnant of a massive system that was able to retain the iron-enriched gas ejected by violent supernova explosions and (2) a site in the Galactic bulge where recent star formation occurred. The striking chemical similarity between Terzan5 and the bulge stars opens the fascinating possibility it is the fossil remnant of one of the pristine massive structures that generated the bulge via repeated interactions and mergers.

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**Session Classification:** Evolved stars and the connection to Galactic archaeology