

## How old are the different components of the Galaxy and over what timespan did they form?

*Thursday, 21 September 2017 09:45 (30 minutes)*

Several all the processes at play in the formation of our Galaxy, such as gas accretion, internal secular evolution, and mergers. New data are unveiling the complexity and the interplay of the several stellar populations in each of the galactic components. A fully self-consistent model of the MW is still missing, but parallel efforts using different techniques have shown to be extremely useful in, at least, pointing out which would the best observational constraints to these models be. It is a consensus that the knowledge of ages for large samples of stars in our Galaxy is probably the most precious information in order to strongly constraint the different evolutionary paths of the different galactic components. In this talk I will discuss how current data for which age information is available have already contributed to our views of how the galaxy has formed. I will illustrate with examples for the Bulge, the thick and thin disks and the halo. I hope to convince our picture of how the MW formed its components is now getting much more clear. Still, a community effort to obtain ages for larger samples of stars, especially at old ages, is necessary. In this respect the Plato mission combined with ground-based spectroscopic surveys could play an important role, depending on the details on the targets and observational strategies made.

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