

- The chairs did an excellent job of moderating the discussions and launching interesting themes at the end of each session.

While it is not possible to convey here the full range of the discussions, a few main topics emerged during the workshop:

1. Many new results about multiple stellar populations in globular clusters were presented, but there is no theoretical model that can explain all the evidence. This is in no small part due to the sheer computational power that is required to simulate physical processes from the stellar to the galactic scale, and over long time scales;
2. Spectroscopic tagging of stellar populations is becoming one of the key tools to uncover the past evolution of the Milky Way and its sub-components;
3. More and more, the spectroscopic data are delivered by large surveys (such as, VVV(X), APOGEE, Gaia-ESO, GOTHAM, etc.);
4. Surveys are revealing that we lack basic data for many Galactic components, even after decades of research efforts (such as for globular clusters). Perhaps hundreds of young clusters and globular clusters are hidden in the highly extincted regions of the Milky Way;
5. Variable stars are a powerful tool to find those hidden clusters and other structures, so many results can be expected as the detection and characterisation of variables progresses;
6. The accumulation of large spectroscopic datasets is both a blessing and a challenge for the simulations of galaxy evolution that need to reproduce them;
7. Nevertheless, simulations of Milky Way-type galaxies are reaching significant maturity, and we can expect an ever-improving match to observations in the near future;
8. Both known Milky Way streams, and the search for new ones with wide-field imaging surveys, were discussed. In agreement with recent observational results, simulations predict that outer galactic halos are mostly formed by accretion;
9. Photometric and spectroscopic surveys are helping to disentangle the complex evolution history of the Magellanic Clouds. Stellar populations from external regions (star clusters in particular) are useful tools to characterise the tidal interaction history of both galaxies.

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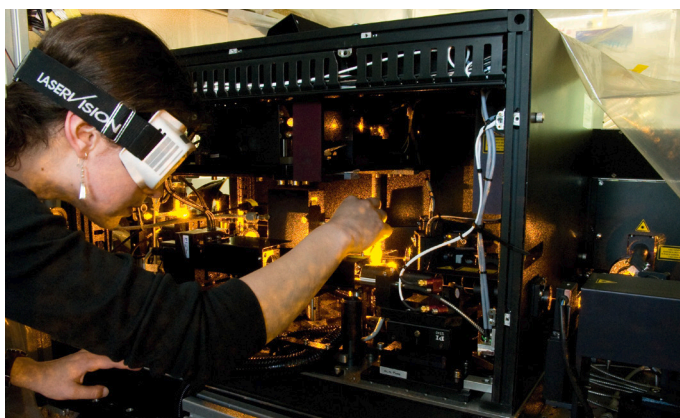
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Links

- ¹ Variables in the *Via Lactea* survey: <https://vvvsurvey.org/>
² Gaia-ESO survey: <https://www.gaia-eso.eu/>
³ SDSS APOGEE survey: <http://www.sdss3.org/surveys/apogee.php>
⁴ Workshop web pages: <http://www.eso.org/CG2017>

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