

The chance for that appeared one month after my PhD defense. On the day before my birthday I received the fellowship offer, which I promptly accepted. I started as a fellow in Garching in October 2009, after a nine months postdoc in Brazil. In my research, I use high resolution spectroscopy to determine stellar chemi-

cal abundances and investigate the physical processes affecting the structure and the evolution of low- and intermediate-mass stars. I am also interested in understanding the chemical evolution of the Galaxy better. For my functional duties I joined the User Support Department. I am now helping to support service

mode observations using UVES at the VLT. It was a long and challenging, but also rewarding, path from a small telescope and a planetarium to being part of ESO, a world-leading observatory where I can work with one of the largest and most modern telescopes ever built.

Announcement of the ESO Workshop

## Dynamics of Low-Mass Stellar Systems: From Star Clusters to Dwarf Galaxies

4–8 April 2011, ESO Santiago, Chile

At the low-mass end of stellar systems, there used to be a well-known dichotomy. On the one hand, there are star clusters with typical sizes of a few parsecs (pc), whose internal dynamics can generally be well described by the Newtonian gravity law. On the other hand, there are the much more extended dwarf galaxies with sizes of several hundred pc, whose dynamics appear to be dark matter dominated and which are usually related to cosmological substructures. These classical boundaries have been blurred by the recent discovery of new classes of stellar groupings, such as ultrafaint dwarf spheroidal galaxies (dSphs), ultramassive super star clusters, ultra compact dwarf galaxies (UCDs), and dark-matter-poor tidal dwarf galaxies (TDGs). These discoveries and the confirmation of multiple stellar populations in a number of Galactic globular clusters have reinforced the question, to which extent star clusters and dwarf galaxies actually share common origins and are intimately linked in their dynamical evolution.

In this context, recent years have seen a particularly large effort in the astronomical community to thoroughly investigate the internal dynamics of low-mass stellar systems in the Milky Way and Andromeda. Extensive measurements of dwarf spheroidal galaxy kinematics have yielded crucial input for structure formation theories, particularly on the clustering properties of dark matter on small scales. Similar observing campaigns regarding Milky Way

star clusters are providing strong constraints on theories of modified gravity and on the shape of the black hole mass–sigma relation at low masses. Proper motion studies of the Galactic halo have revealed a marked phase-space correlation of dSph orbits, which is challenging canonical structure formation paradigms, and alternative explanations to dark matter have been put forward regarding the large velocity dispersions found for dSphs.

Beyond the Local Group, space-based imaging has been extensively used to investigate the dynamical evolution of star cluster populations in a number of star-forming galaxies. The initial cluster mass function is distinctly different from the mass function of old globular clusters, which is still not very well understood. Also, star clusters and dwarf galaxies have been used as dynamical tracers in galaxies and galaxy clusters, constraining the gravitational potential on large scales. Finally, peculiar internal dynamics were found for UCDs — objects at the phase transition between star clusters and dwarf galaxies — suggesting either dark matter clustering on scales below those suggested for dSphs, or a significant variation of the initial mass function.

All this shows that the dynamics of low-mass stellar systems is not only an interesting subject in its own right, but is also intimately linked to global theories of structure formation, the physics of gravity, and

the shape of the stellar initial mass function. Given the wealth of new information gathered most recently in this field, the time is ripe to hold a dedicated meeting on this topic. We aim at bringing together a mix of astronomers from both observations and theory who work on the dynamics of dwarf galaxies and star clusters.

The scientific organising committee consists of: Holger Baumgardt, Australia; Giovanni Carraro, ESO; Michael Fellhauer, Chile; Mark Gieles (co-chair), UK; George Hau, ESO; Michael Hilker, ESO; Helmut Jerjen, Australia; Steffen Mieske (co-chair), ESO; Yazan Momany, ESO; Ivo Saviane, ESO; Michael West, ESO; Mark Wilkinson, UK.

The local organising committee consists of: Karla Alamo, María Eugenia Gómez, Valentin Ivanov, Lucie Jílková, Paulina Jirón, Renee Mateluna, Steffen Mieske.

The workshop, limited to 60–80 participants, will take place at the ESO premises in Santiago, Chile.

Further details are available at <http://www.eso.org/sci/meetings/dynamics2011/>.

The deadline for registration is 15 January 2011. Further information can be obtained from [dynamics2011@eso.org](mailto:dynamics2011@eso.org).