

REPORT ON THE TOPICAL MEETING

RESOLVED STELLAR POPULATIONS

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ADVANCES in ground- and space-based observational capabilities, as well as modelling tools, have enabled the study of resolved stellar populations with unprecedented details. This topical meeting, held at ESO Vitacura on June 27, 2003, was aimed at bringing astronomers together to examine the progress that has been made in this field.

D. Minniti kicked off the Topical Meeting with an introduction to the Local Group and outlined some of the outstanding questions.

Concerning MACHOS, A. Rest described how the shape of the LMC luminosity function affects the number of microlensing events expected.

Tidal streams and mergers were the subjects of several talks. Deep wide field searches conducted around M31 and M33 show contrasting results. A. Ferguson found a giant stellar stream in the outer parts of M31, while M33 shows no evidence of substructure. D. Geisler found that the halo of M33 may host an intermediate-age population.

Closer to home, G. Marconi finds that the Sagittarius Dwarf has a metal rich young population with zero alpha-element overabundance, possibly resulting from some recent starburst triggered by a passage through the Galactic disc.

Complex star formation histories can also be seen in other Local Group dwarfs. A. Walker showed that Carina has a well defined blue-plume of young Main Sequence stars and a narrow RGB. The star count exhibits a "shoulder" in the northeast direc-

tion which may be evidence of extra-tidal stars. Like Carina, E. Hardy showed that Fornax also has a complex star formation history. The Ca II triplet equivalent widths show substantial metallicity enrichment, which suggests that metal ejection effects must be small. D. Faria described the study of metallicity distribution using Strömgren photometry, and I. Saviane described the Relative-Ages project.

Are there more Local Group galaxies to be discovered? Probably very few, said A. Whiting, who is conducting an all-sky survey.

Going further afield, an exciting development is the possibility to resolve the stellar populations in nearby groups. D. Minniti described the work on Centaurus A, which has substantial intermediate age stars amongst a metal-rich halo population. More than 1000 Mira long-period variables have been detected, which are used to derive a distance of 4.2 Mpc for this galaxy.

Altogether this Topical Meeting has been very fruitful. Many of the results discussed at the meeting demonstrate the capabilities of large telescopes such as the VLT, and of wide-field imagers. It is evident that there is a large community of astronomers in Chile working on different aspects of the same topic. Exchanging information about their programs and results has been an enlightening experience.

Warm thanks go to A. Lagarini for taking care of the logistics of the meeting.

ESO-ESA MEETING ON A COORDINATED APPROACH TO ASTRONOMY

COSMOLOGY AND FUNDAMENTAL PHYSICS

PETER SHAVER (ESO)

ASTRONOMERS OF ESA AND ESO SHARE THEIR VIEWS ON FUTURE COOPERATION BETWEEN SPACE AND GROUND-BASED ASTRONOMY.

AMEETING between representatives of the ESA and ESO science advisory structures took place in Garching (Germany) on 15–16 September 2003, to explore possibilities for future coordination between ground and space astronomy. Members of the executives of both ESO and the ESA Science Programme also participated.

The meeting took place in the context of the long range planning activities currently underway at both ESO and ESA. The objective was to exchange ideas for further coordination of activities, given the European nature of the two organizations and their service to essentially the same scientific community, and to serve as input for the long range studies being carried out by both organizations.

The meeting started with brief overviews of the current programmes of

both organizations, followed by discussions of scientific areas of common interest. Areas of overlap and complementarity were identified, and possibilities for future coordination were discussed.

A number of actions are being undertaken as a result of the meeting.

1. A document is being jointly prepared on the relevant activities carried out by both organizations and the synergies identified for future planning. This information will be widely distributed to the scientific community in Europe.

2. A framework is being outlined on how to deal jointly with large programmes requiring space and ground-based support. Further discussion will then lead to a proposal to ESA and ESO for possible implementation.

3. A proposal is being prepared for exchanging time on existing facilities. A

practical case discussed at the meeting was the joint use of Newton-XMM and VLT.

4. Initially three working groups are being established, to consider coordination in the areas of extrasolar planets, the scientific exploitation of the Herschel and ALMA projects, and the monitoring and study of NEOs.

At the meeting, ESO and ESA reaffirmed their support to the further development of the AVO activities in integrating access to data archives from ground and space-based facilities. The documents and reports from the above activities will be released as they become available.

The agenda and the contributions are available on <http://www.eso.org/gen-fac/meetings/esaeso-2003/agenda.html>