A&A 456, 967 (2006)
DOI: 10.1051/0004-6361:20053933e

Astronomy & Astrophysics

Erratum

AGB stars in the Magellanic Clouds

II. The rate of star formation across the LMC

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A&A 448, 77–91 (2006), DOI: 10.1051/0004-6361:20053933

Key words. galaxies: Magellanic Clouds – stars: late-type – Galaxy: abundances – stars: luminosity function, mass function – errata, addenda

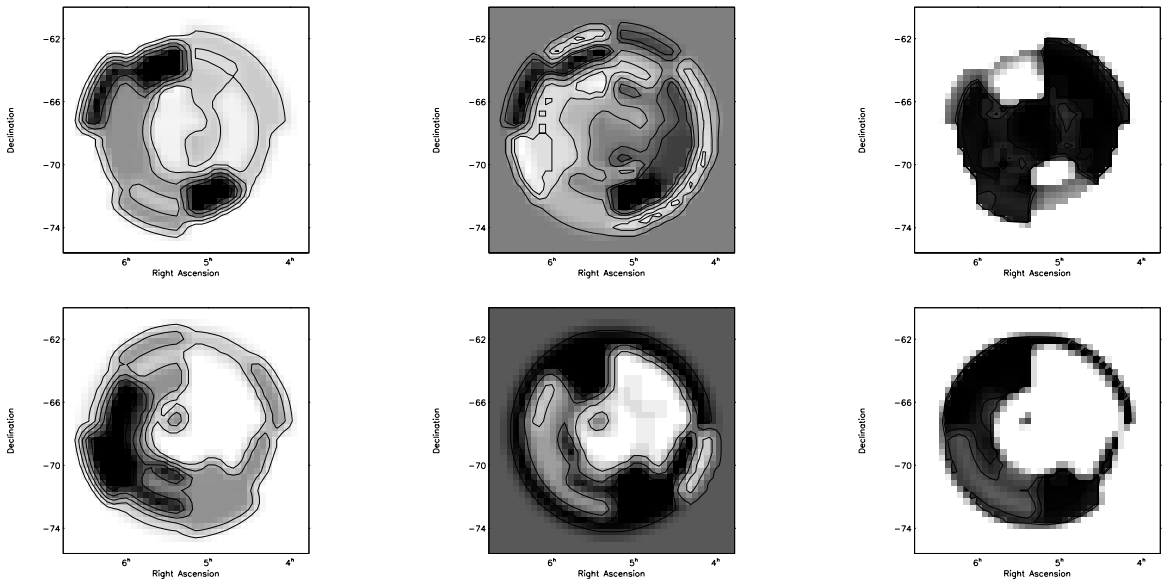

Fig. 1. The same as Fig. 11 but after correcting each sector in rings number 2−5 for the LMC orientation as in Table 2. Contour values are at: Z = 0.003−0.015 with a step of 0.003 for the distribution of metallicity obtained from both C-rich and O-rich AGB stars (*left*); 2, 3, 5, 7, 8, 10 Gyr and 3, 6, 8 Gyr for the distribution of mean-age obtained from C-rich (*middle-up*) and O-rich AGB stars (*middle-down*) respectively; 0.93, 0.96, 0.99 and 0.97, 0.98, 0.99 for the corresponding probability for which the grey scale shows only values above 0.8 and 0.6 for C-rich and O-rich AGB stars, respectively. Darker regions correspond to higher numbers.

Figure 1 shows the distribution of mean-age and metallicity across the LMC accounting correctly for the orientation of the galaxy in the sky by applying different magnitude shifts to stars in different locations. This figure substitutes Fig. 14 in the published version of the paper which was obtained after applying a systematic shift of −0.12 mag to each star in each region.

In the new figure the most striking feature is an approximately smooth ring-like distribution of higher metallicity compared to the inner region of the galaxy containing the bar. This ring-like structure is obtained from both C- and O-rich AGB stars. The average metallicity in the ring corresponds to Z = 0.006 while in the centre Z < 0.003. The distribution of mean-age across the galaxy points to a young stellar population in the E-SE compared to an older population in the W-SW. However, the distribution is rather patchy especially in regions poorly constrained (NE and SW). The bar of the galaxy does not appear as a clear feature but it corresponds to a population which is on average 5 Gyr old.

Note also that the isochrones used in this paper are now available at `http://pleiadi.oapd.inaf.it`.