A New Method to Derive Star Formation Histories in Dwarf Galaxies

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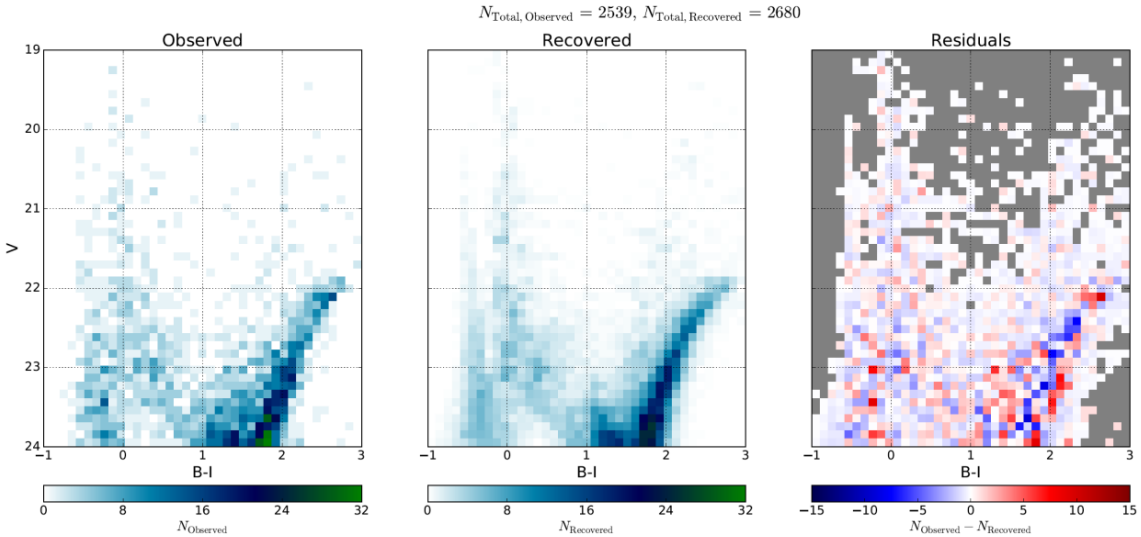

Fig. 1. Hess diagrams of the used photometric data of the Leo A galaxy stars (left), artificial star populations generated from the recovered star formation history (middle), and residuals (right).

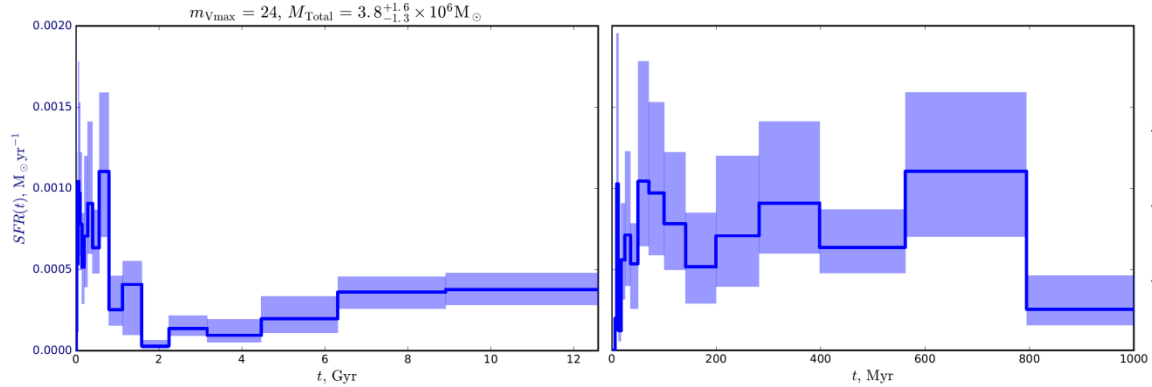

Fig. 2. The derived SFH of the Leo A galaxy during the Hubble time (left) and last Gyr (right). Dark blue lines show star formation rate at a given time $SFR(t)$ in units of solar masses per year $\mathrm{M}_\odot\mathrm{yr}^{-1}$. Pale blue areas indicate the scatter limits of the derived $SFR(t)$ values.

Dwarf irregular galaxy Leo A

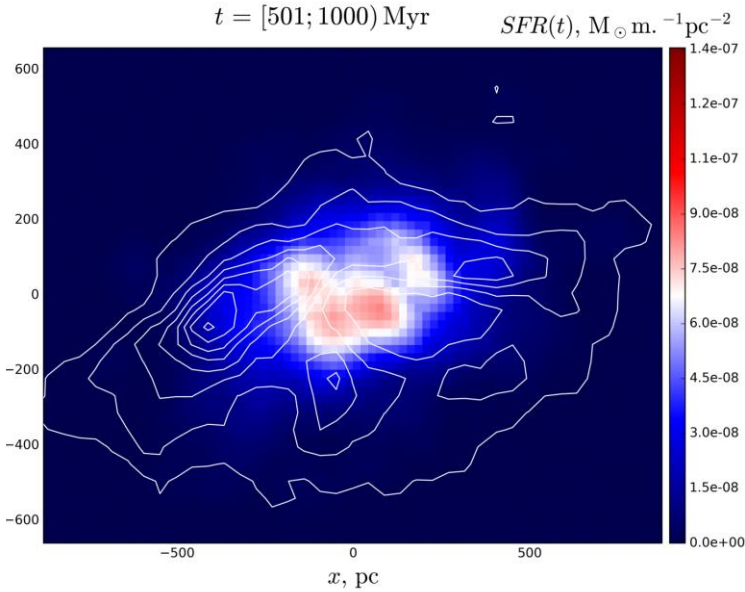

Fig. 3. Derived 2D maps of star formation rates for 8 periods of time during the past 1 Gyr in the Leo A galaxy. White contour indicates HI density distribution (Hunter et al. 2012).