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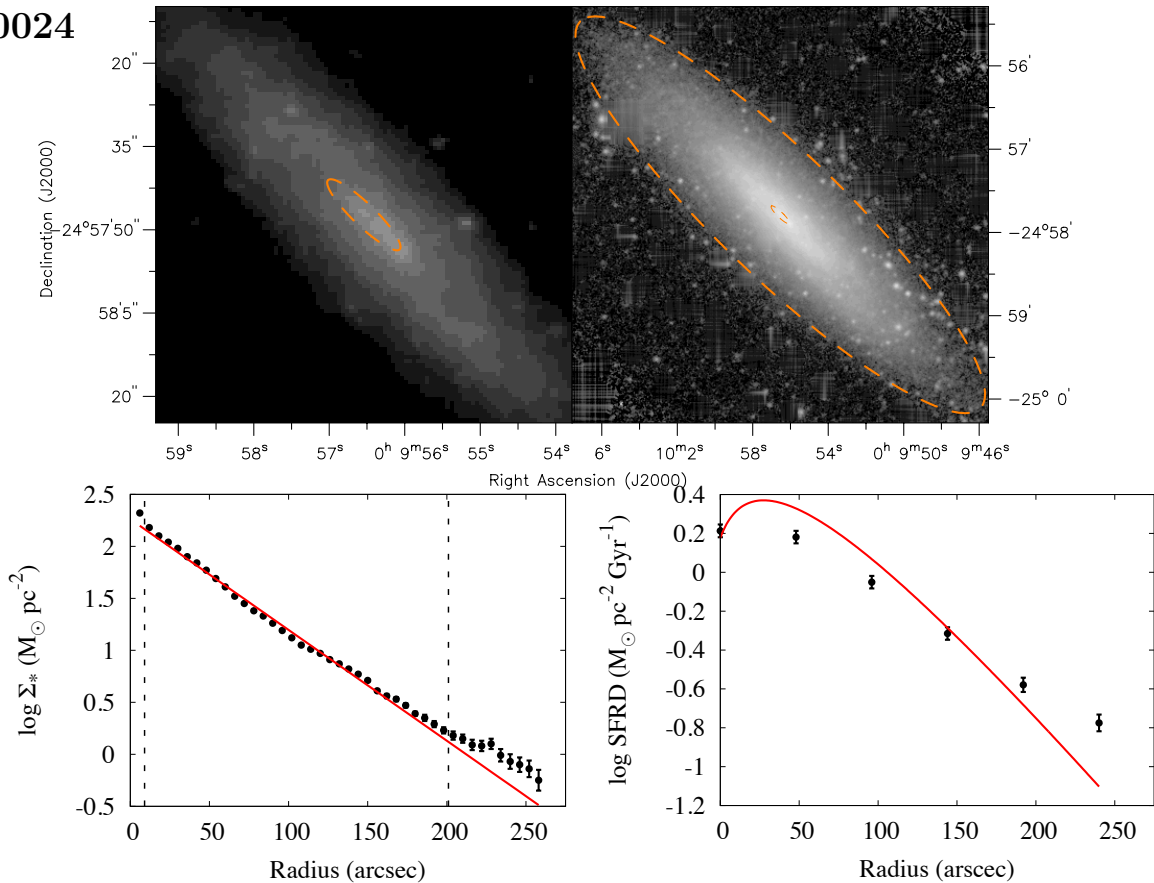
Atlas of *Spitzer* 3.6 μm and GALEX+*Spitzer* star formation rate surface density (SFRD) profiles of 35 nearby spiral galaxies

Supplementary online material for the article

“The instantaneous radial growth rate of stellar discs” (MNRAS 2015, accepted) by G. Pezzulli, F. Fraternali, S. Boissier and J.C. Muños-Mateos

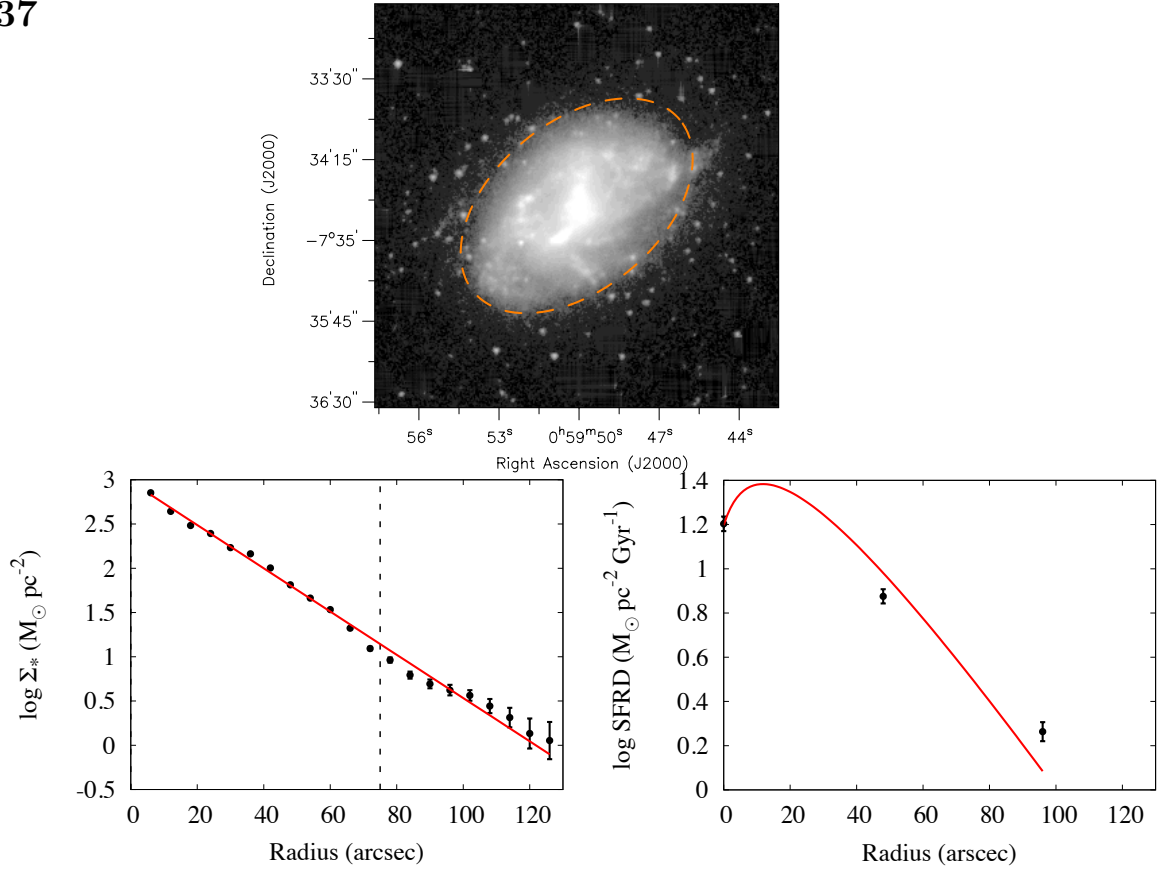
Brief description (see the article for details): For each galaxy, the upper panels are maps of the emission at 3.6 μm . Overlaid ellipses correspond to the limits of the radial range where the exponential fit to the 3.6 μm profile was performed (lower-left panel). The lower-right panel shows the observed SFRD profile, together with the best-fitting theoretical model.

NGC 0024



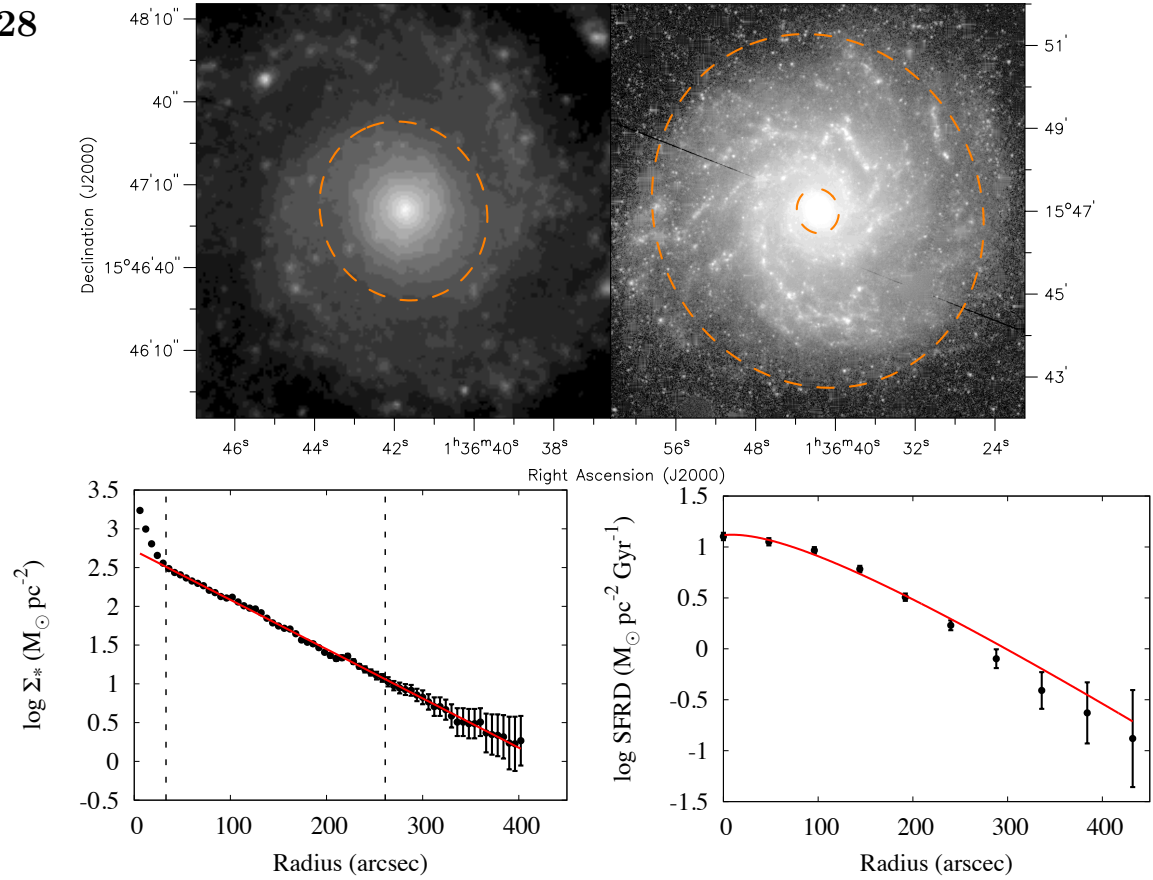
NGC 0024. 3.6 μm fit range: 9–201 arcsec. Special caution may be due for this object, which is the most inclined in our sample ($i = 77^\circ$).

NGC 0337



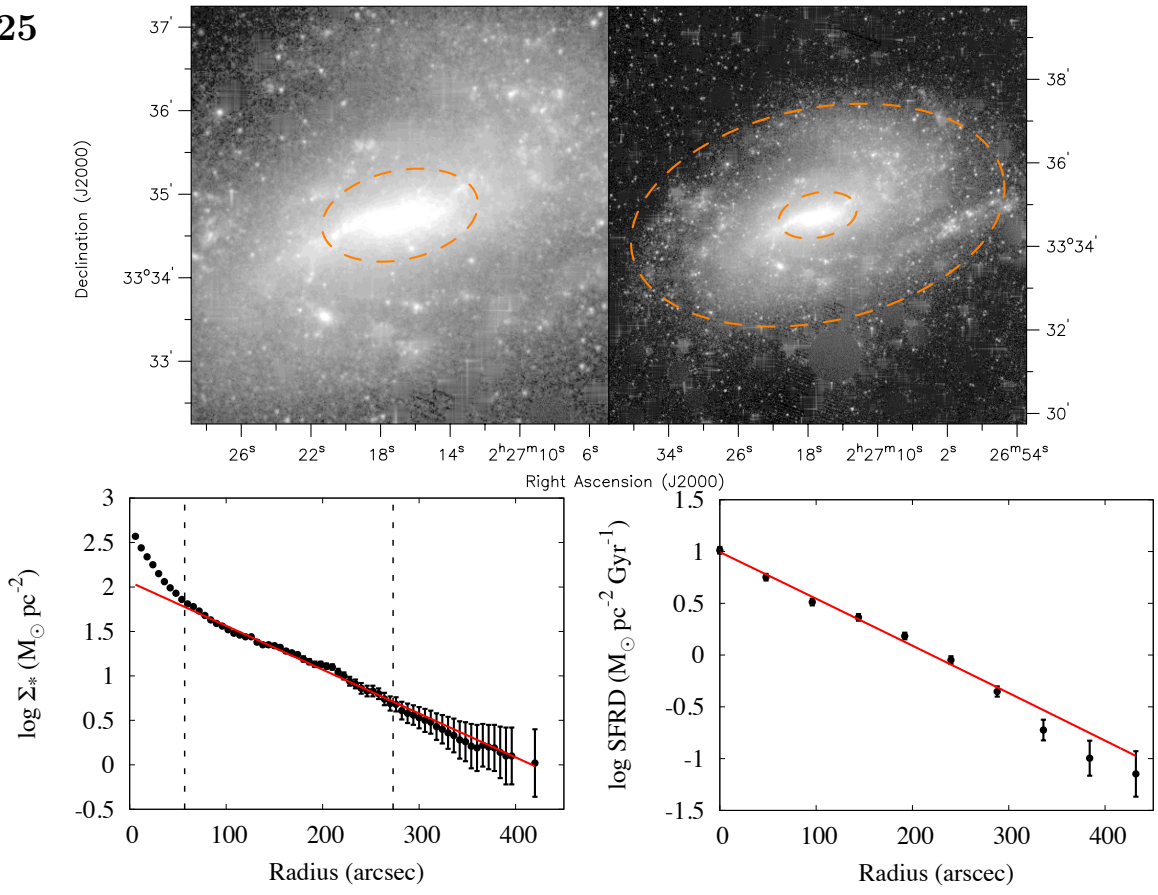
NGC 0337. $3.6 \mu\text{m}$ fit range: 0–75 arcsec. This is the most distant galaxy in our sample ($D = 25$ Mpc) and therefore the one with the worst spatial resolution.

NGC 0628

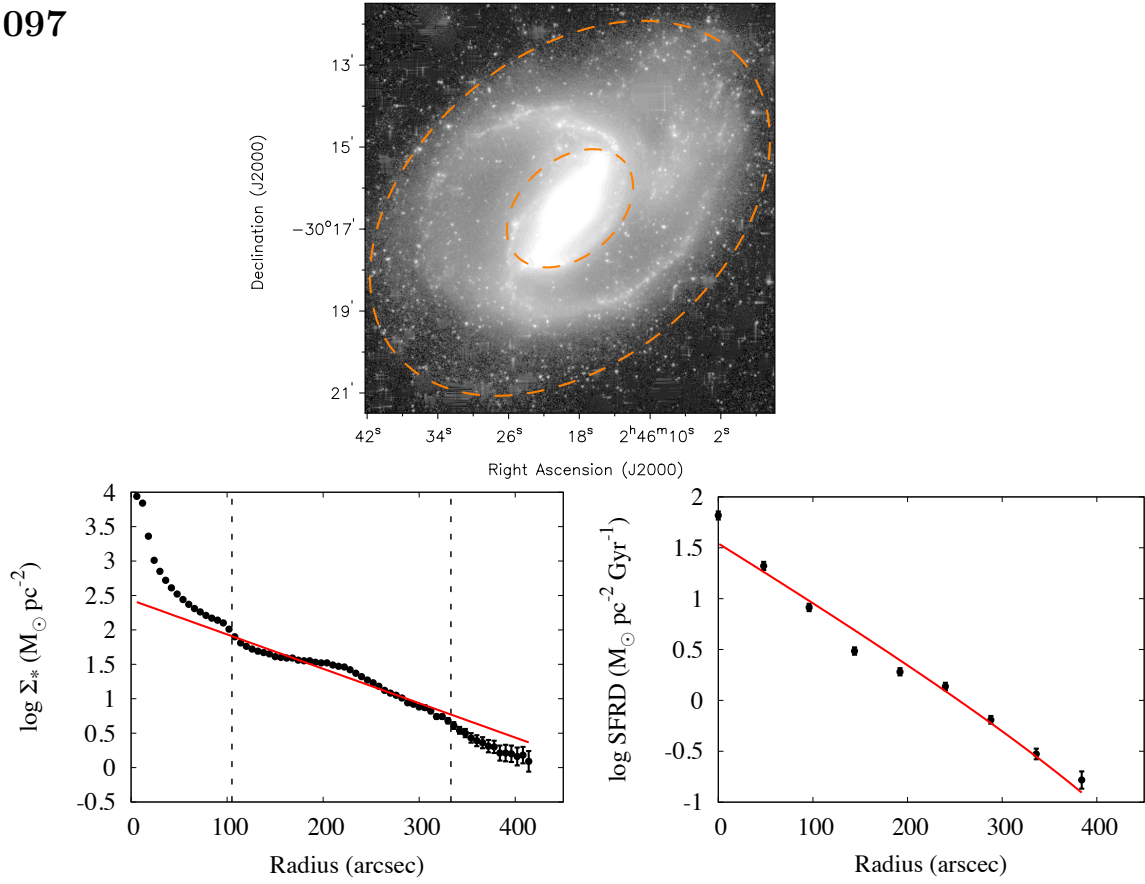


NGC 0628. $3.6 \mu\text{m}$ fit range: 33–261 arcsec.

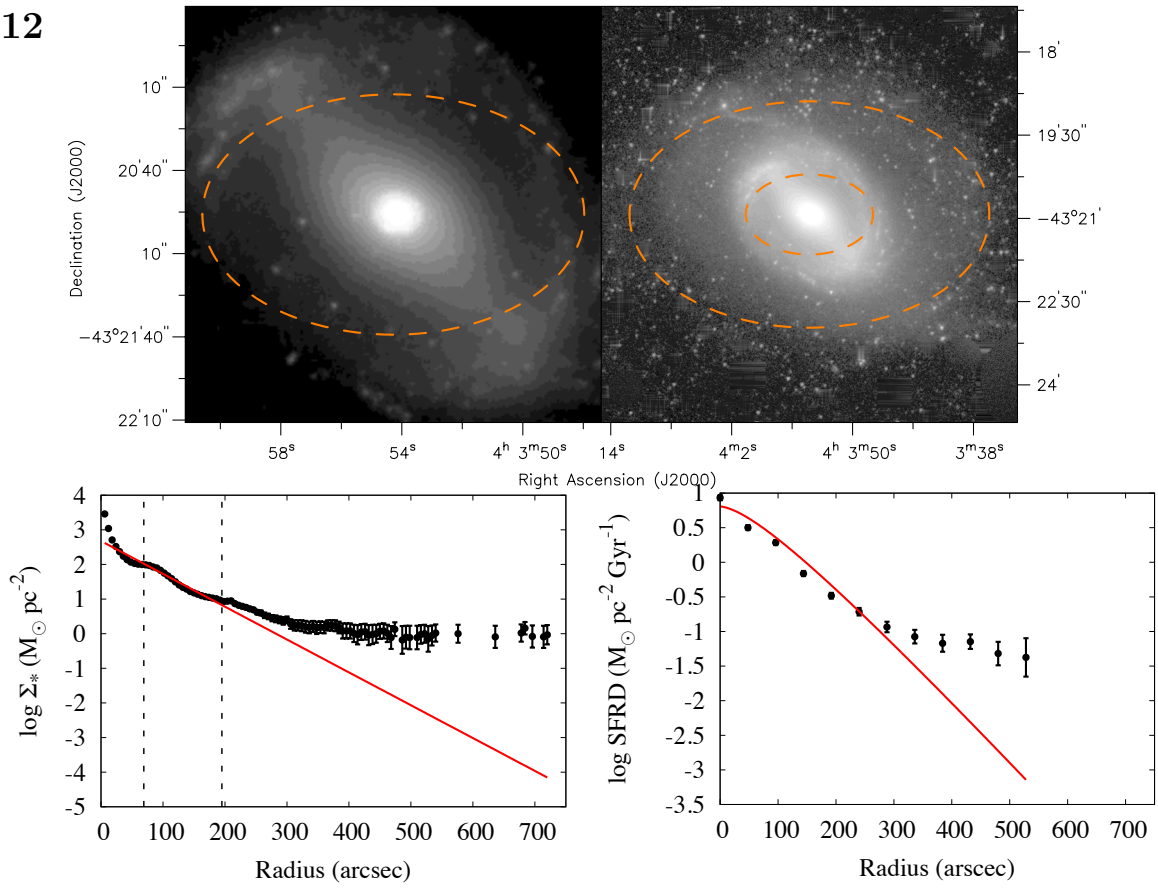
NGC 0925



NGC 1097

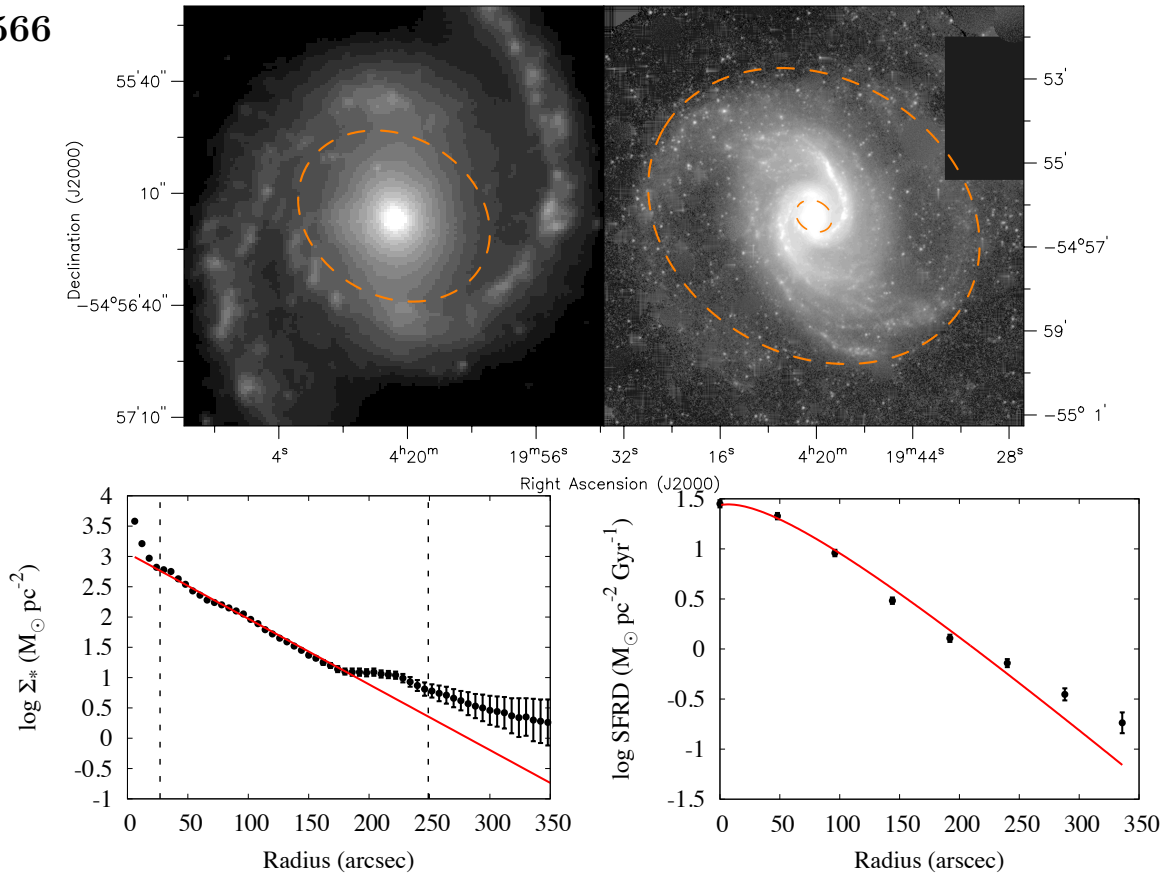


NGC 1512



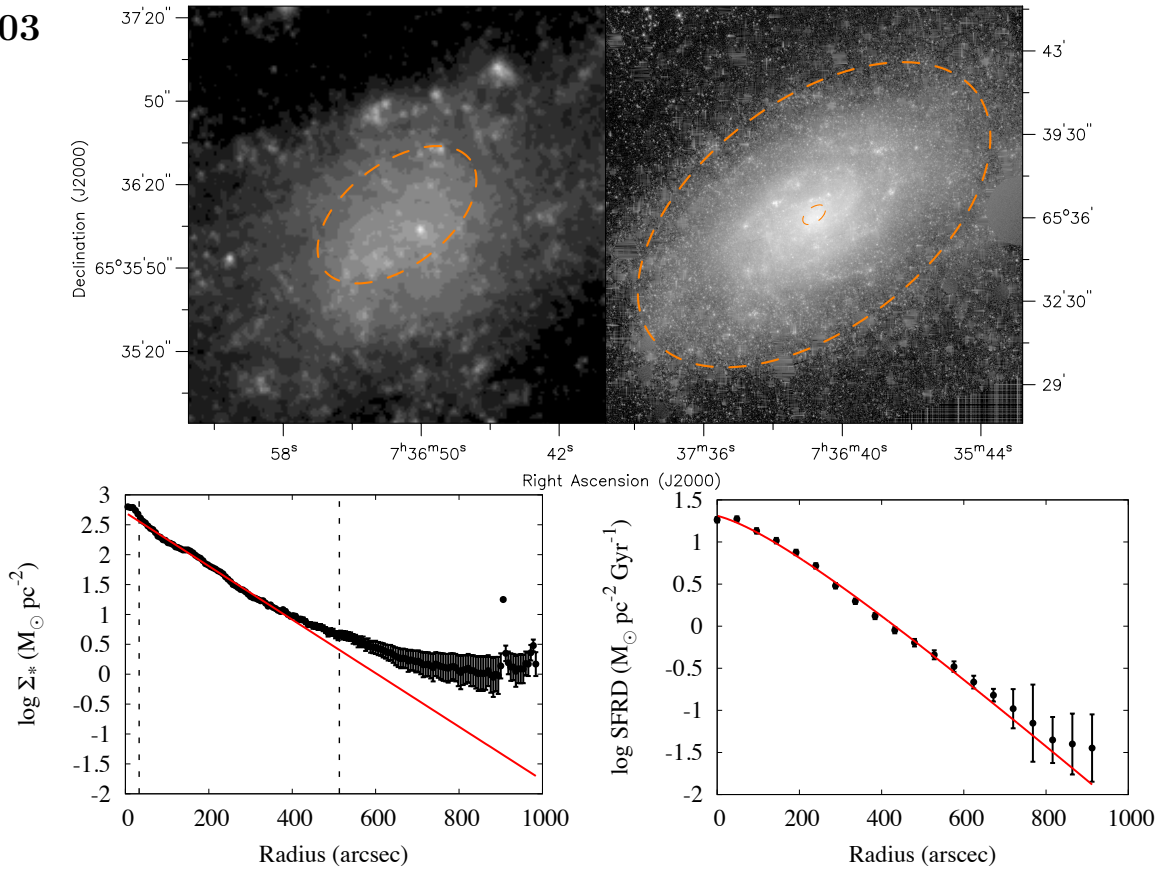
NGC 1512. $3.6\ \mu\text{m}$ fit range: 69–195 arcsec; unweighted. The extended outer flattening, visible in both profiles, may be related to some interaction with NGC 1510 (out of the image, in the south-west direction).

NGC 1566



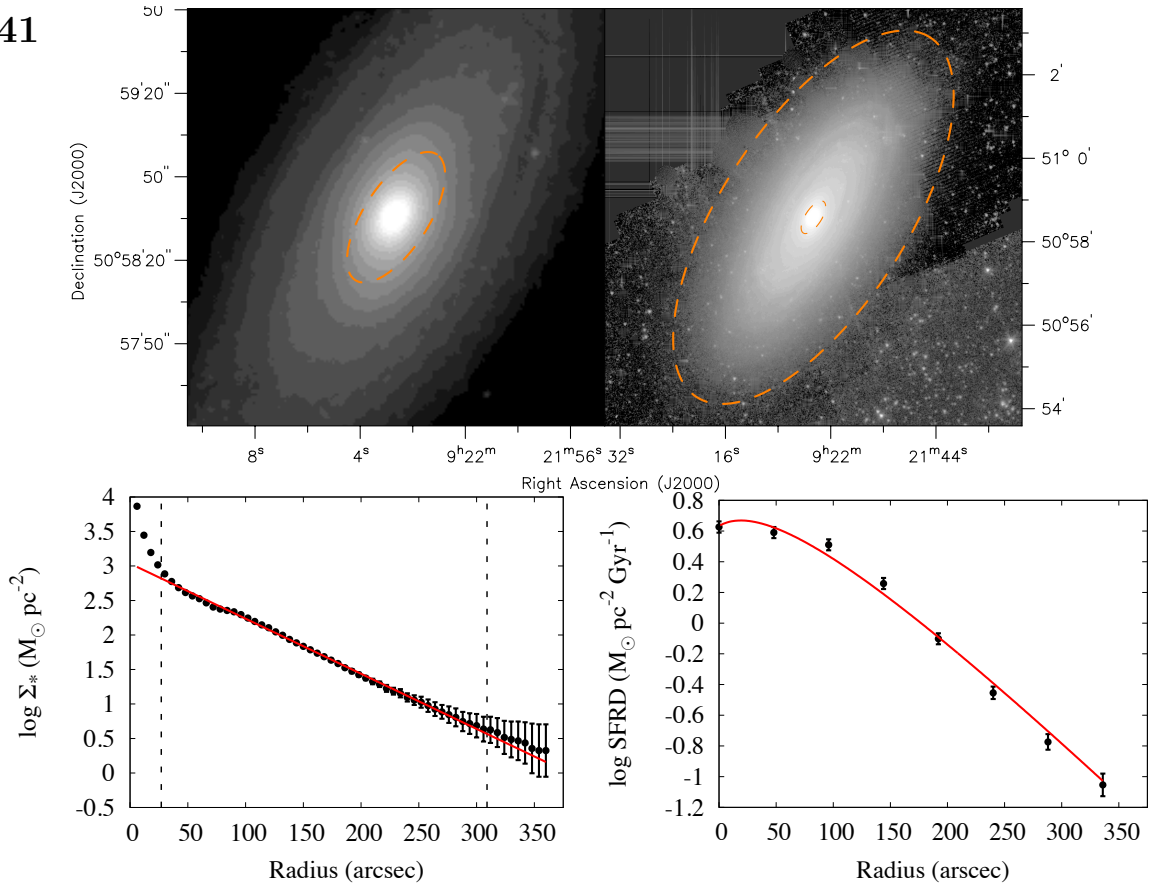
NGC 1566. $3.6\ \mu\text{m}$ fit range: 27–249 arcsec. Two very prominent arms may be related to the step-like shape of the outer $3.6\ \mu\text{m}$ profile.

NGC 2403



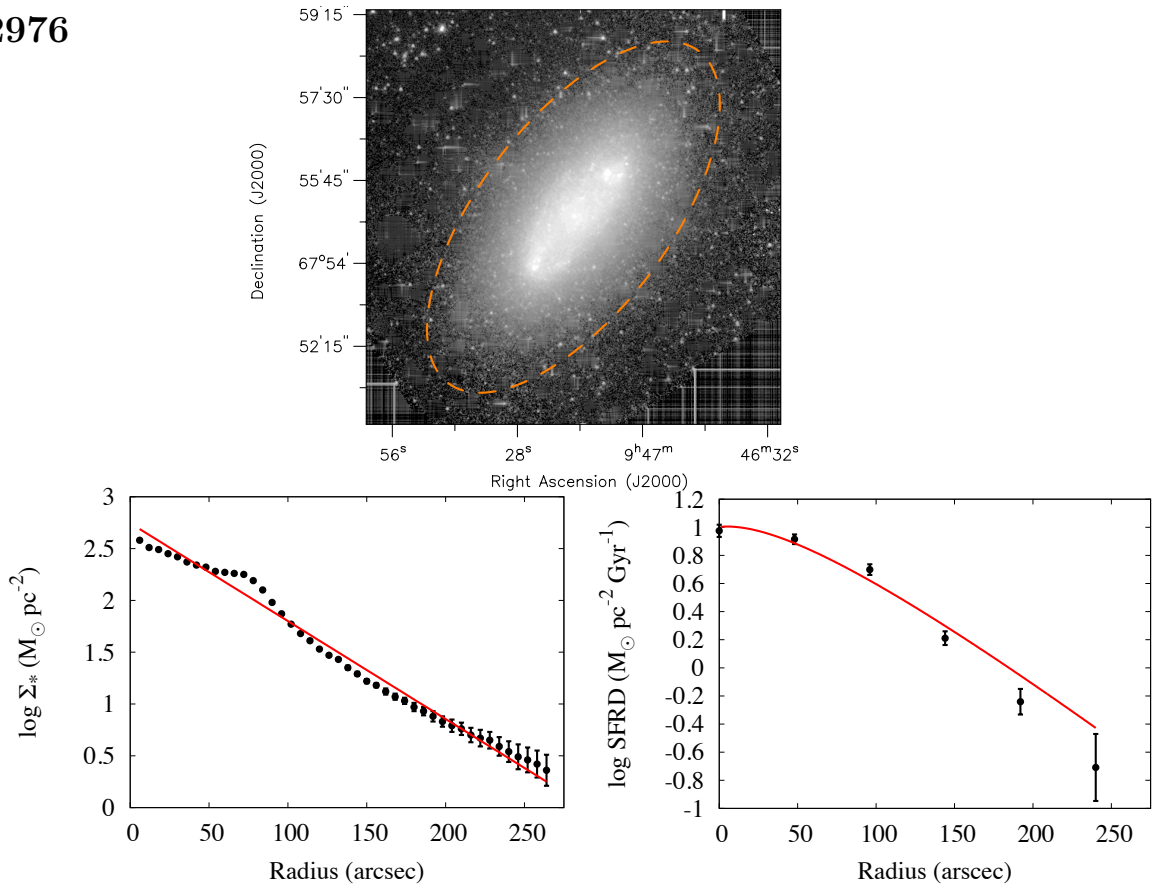
NGC 2403. $3.6 \mu\text{m}$ fit range: 33–513 arcsec. The inner ellipse is chosen to compensate for a small offset in the adopted centre.

NGC 2841



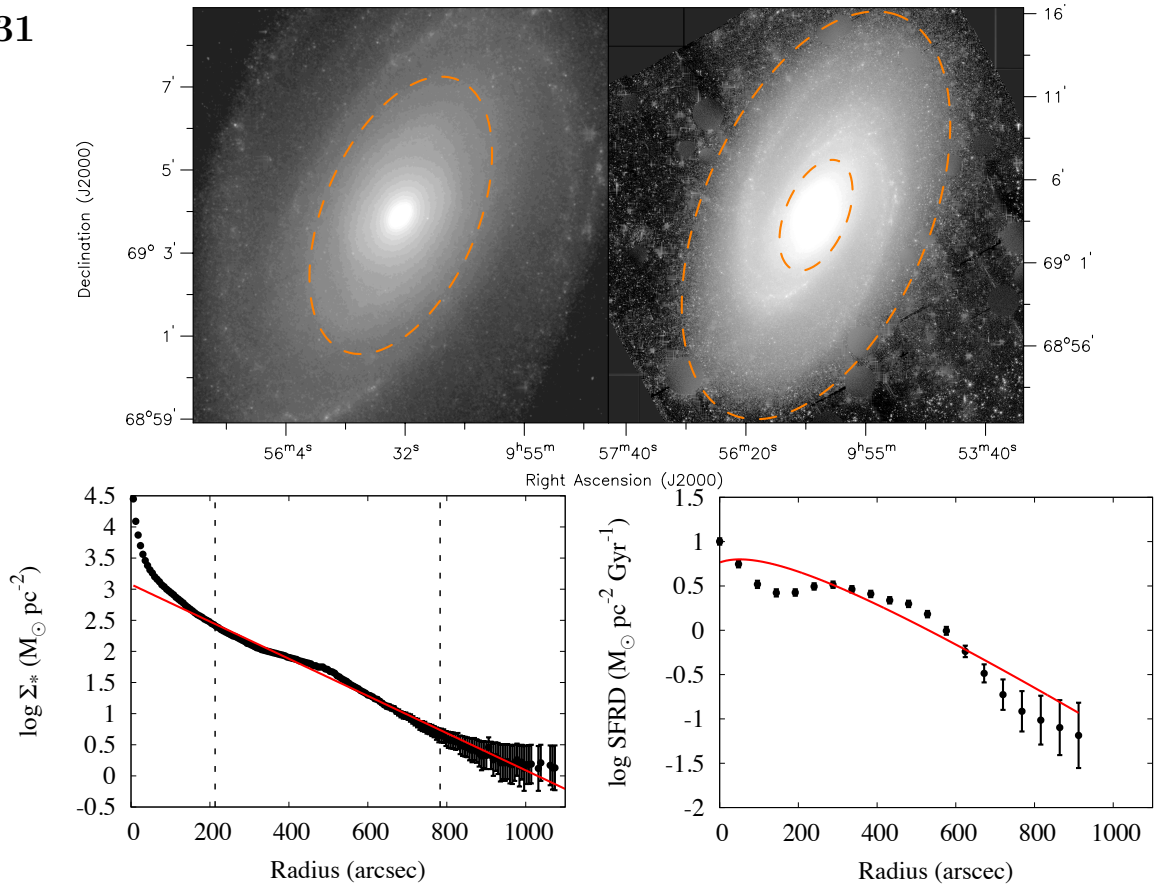
NGC 2841. $3.6 \mu\text{m}$ fit range: 27–309 arcsec.

NGC 2976



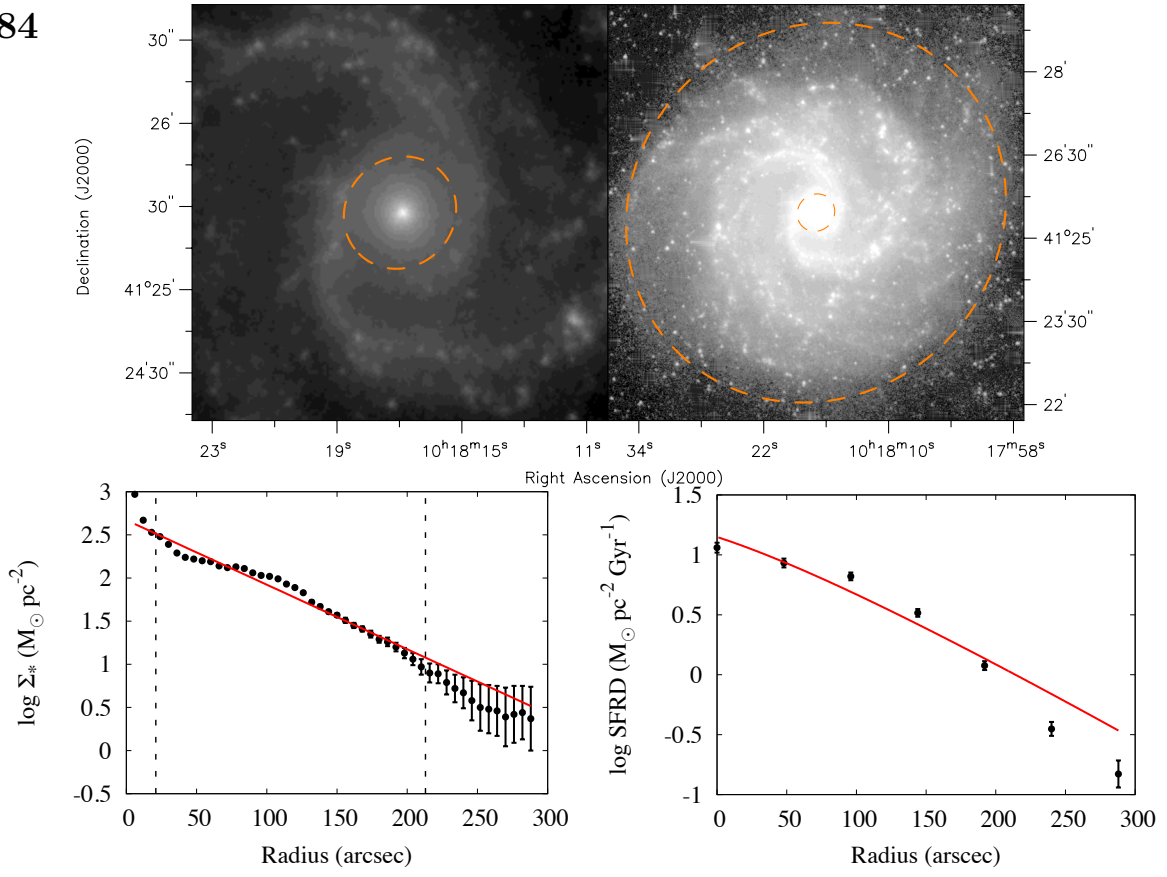
NGC 2976. $3.6 \mu\text{m}$ fit range: 0–264 arcsec, which is the whole available domain. A normal weighted fit gives a good account to the overall profile notwithstanding the presence of a prominent bump.

NGC 3031



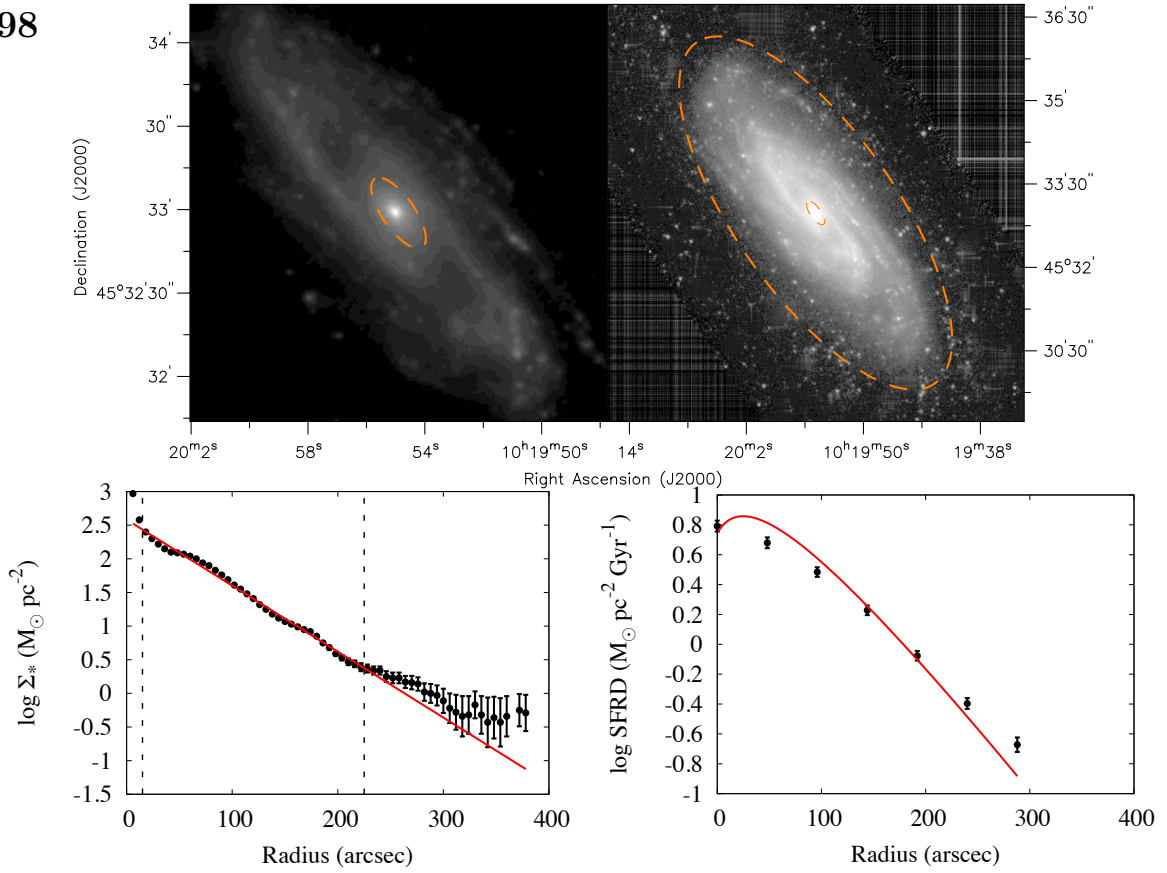
NGC 3031. $3.6 \mu\text{m}$ fit range: 213–783 arcsec; unweighted. The bulge is very prominent, but the disc-dominated region is clearly traced by the appearance of spiral arms.

NGC 3184



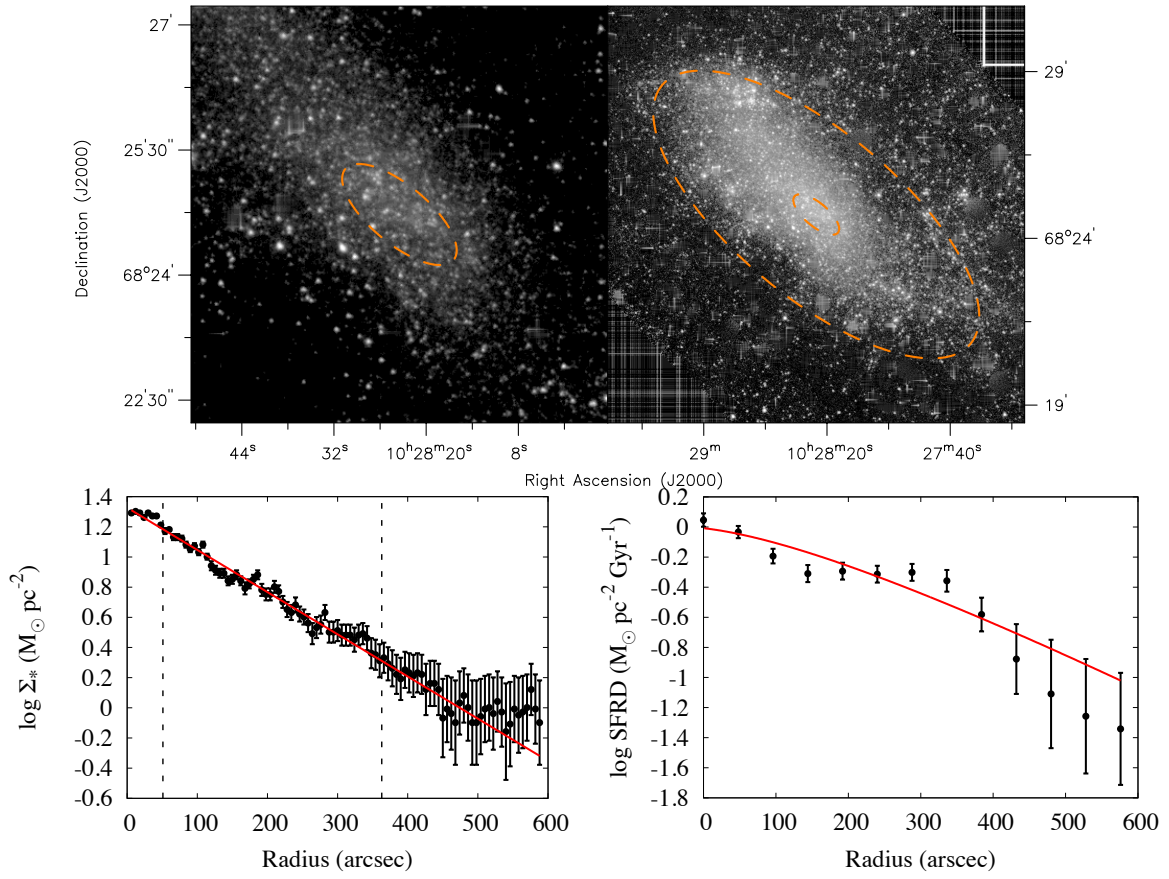
NGC 3184. $3.6 \mu\text{m}$ fit range: 21–213 arcsec; unweighted. As for NGC 3031, the disc-dominated region is readily recognized thanks to the prominent spiral structure.

NGC 3198



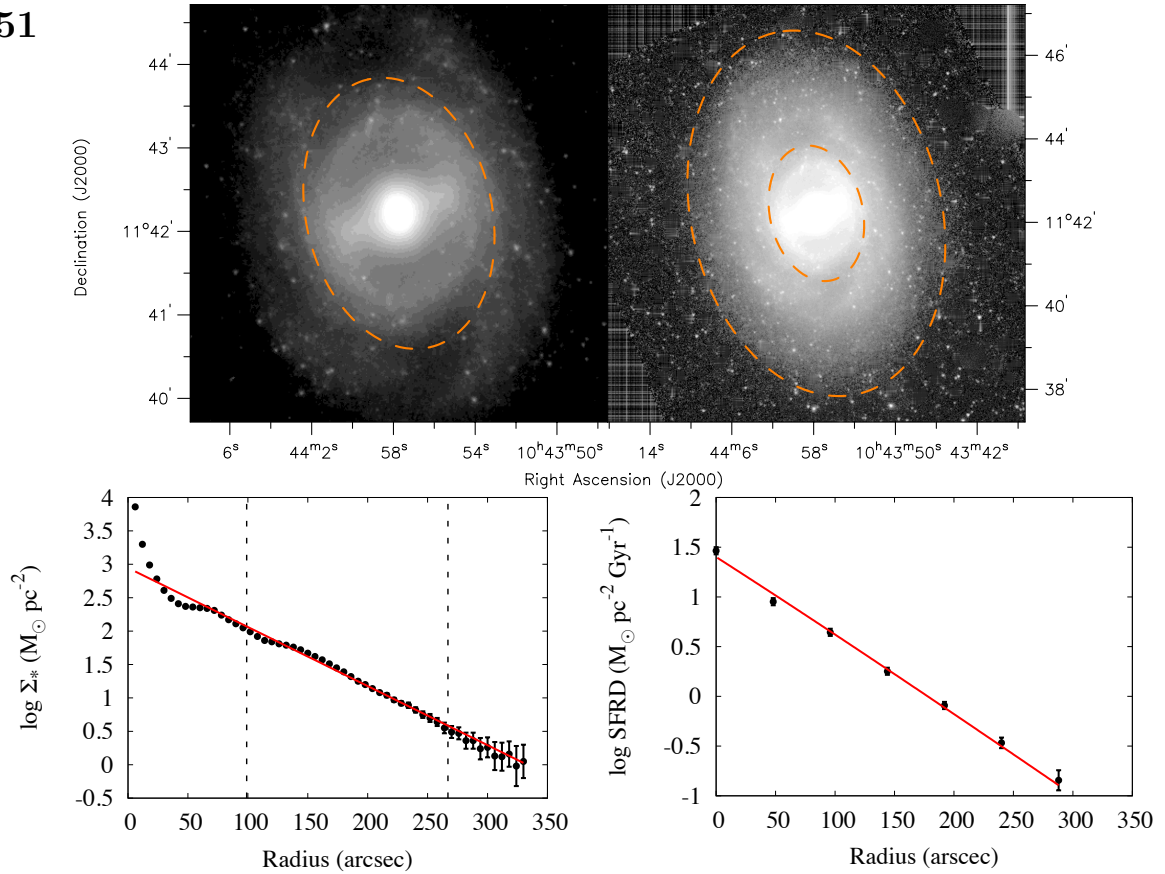
NGC 3198. $3.6 \mu\text{m}$ fit range: 15–225 arcsec.

IC 2574



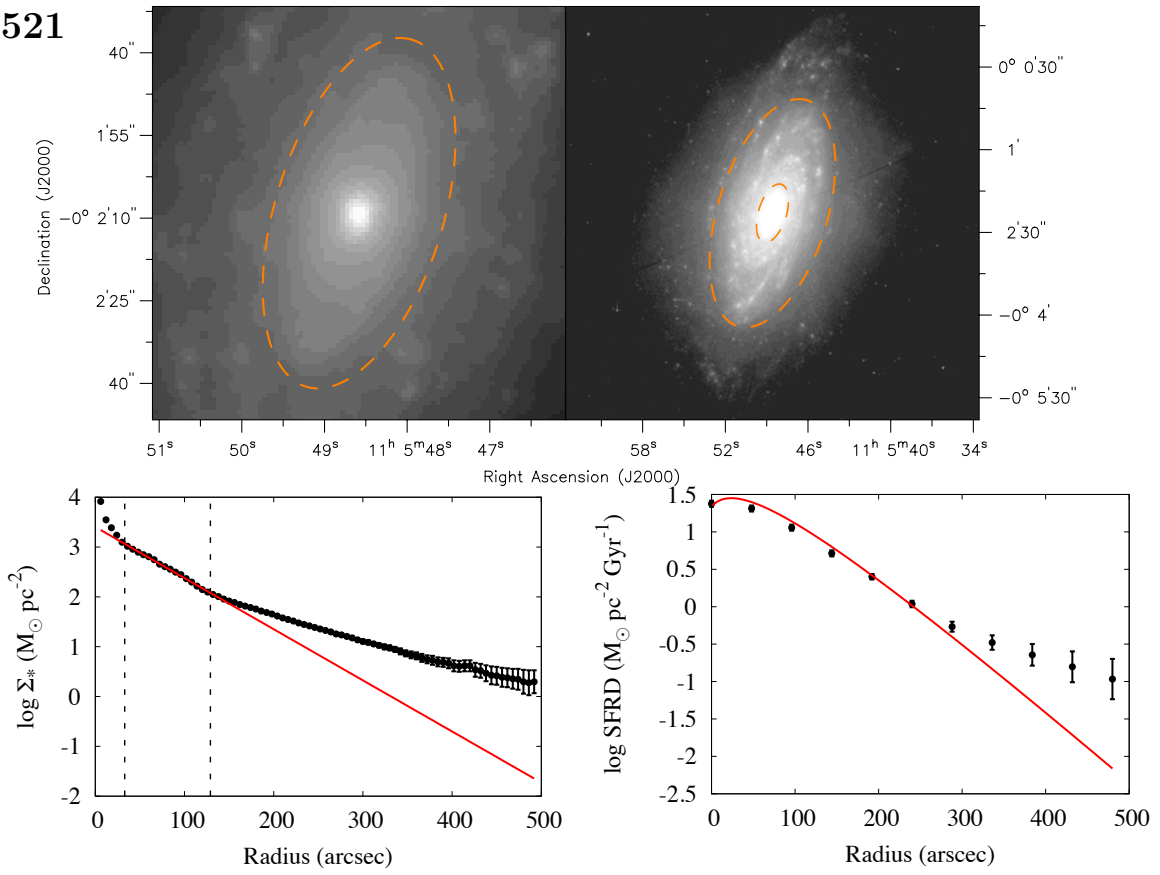
IC 2574. $3.6 \mu\text{m}$ fit range: 51–363 arcsec. The inner ellipse is chosen to compensate for a central offset. This is the nearest galaxy in our sample (just 4 Mpc from us), hence the possibility to see small scale oscillations in both profiles.

NGC 3351



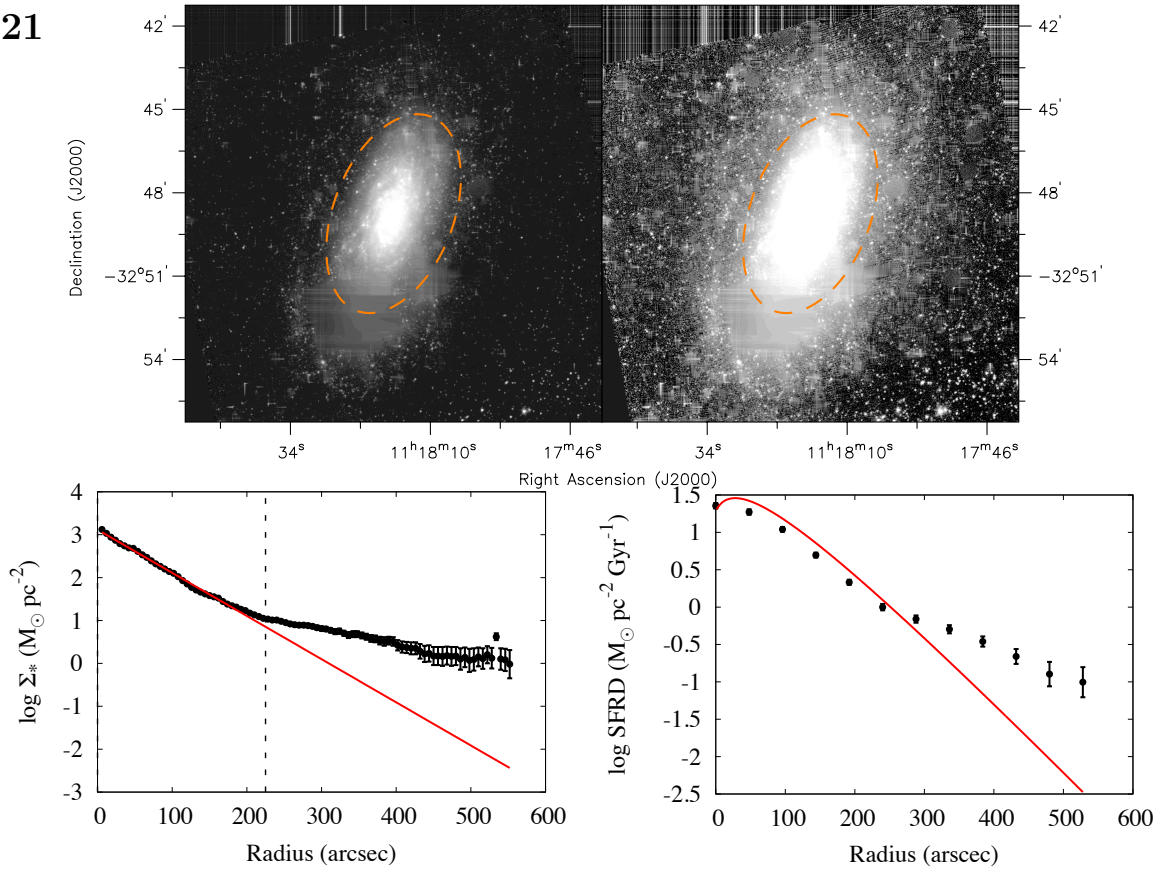
NGC 3351. $3.6 \mu\text{m}$ fit range: 99–267 arcsec unweighted. The inner ellipse encloses a prominent central ring.

NGC 3521



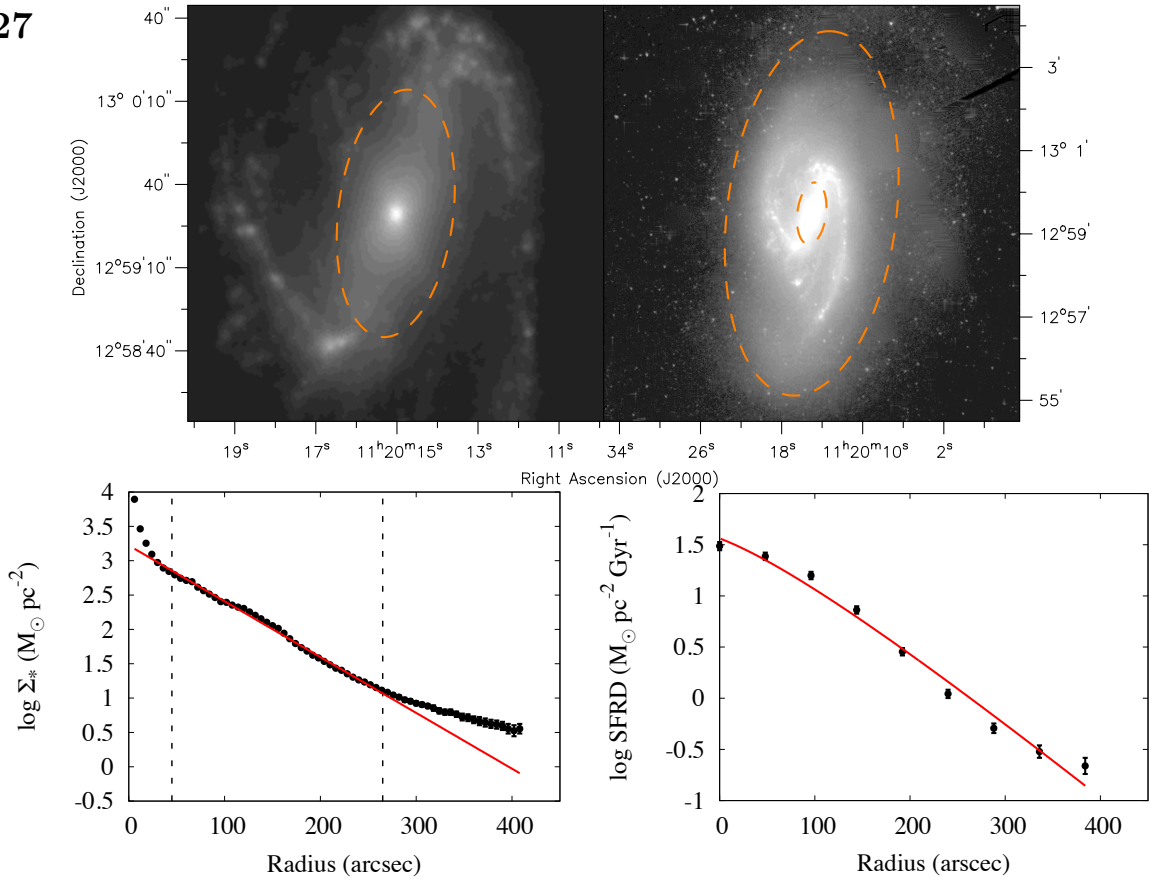
NGC 3521. $3.6 \mu\text{m}$ fit range: 33–129 arcsec. Out of 129 arcsec, the $3.6 \mu\text{m}$ profile suddenly becomes shallower and the isophotes assume a peculiar boxy shape. Note that the SFRD profile starts to flatten at much larger radii.

NGC 3621

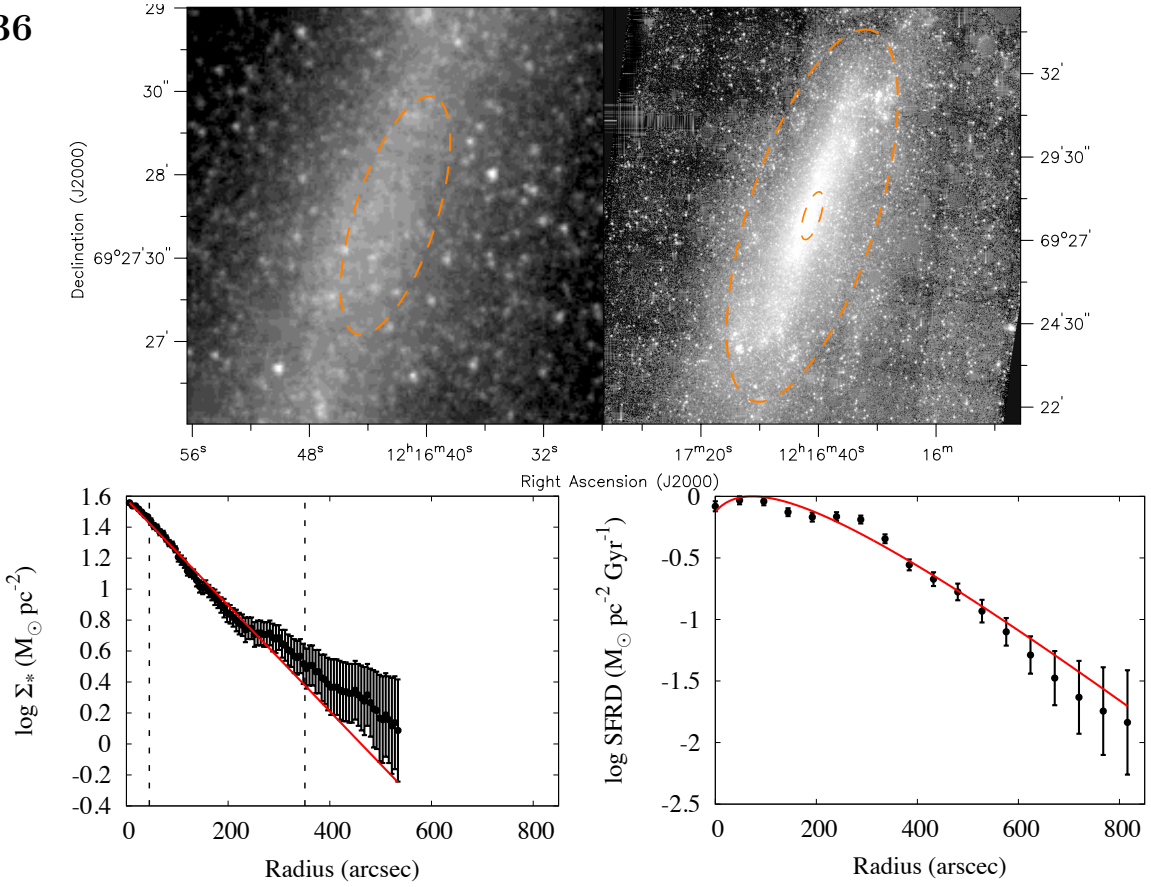


NGC 3621. $3.6 \mu\text{m}$ fit range: 0–225 arcsec. The ellipse at 225 arcsec is shown in both images, with the same scale but different contrast, to better show the emission of the inner disc (left) and the outer disc (right). Both profiles show an abrupt outer flattening starting from this radius.

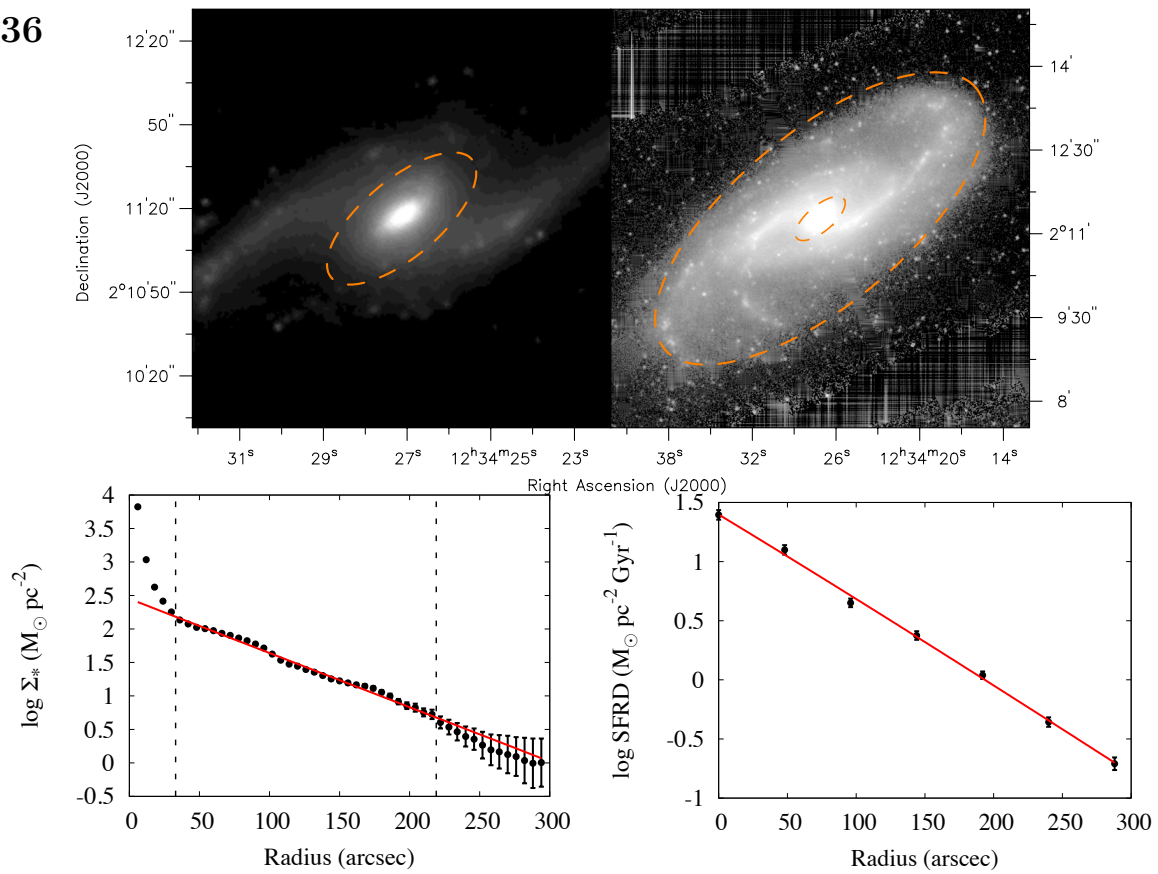
NGC 3627



NGC 4236

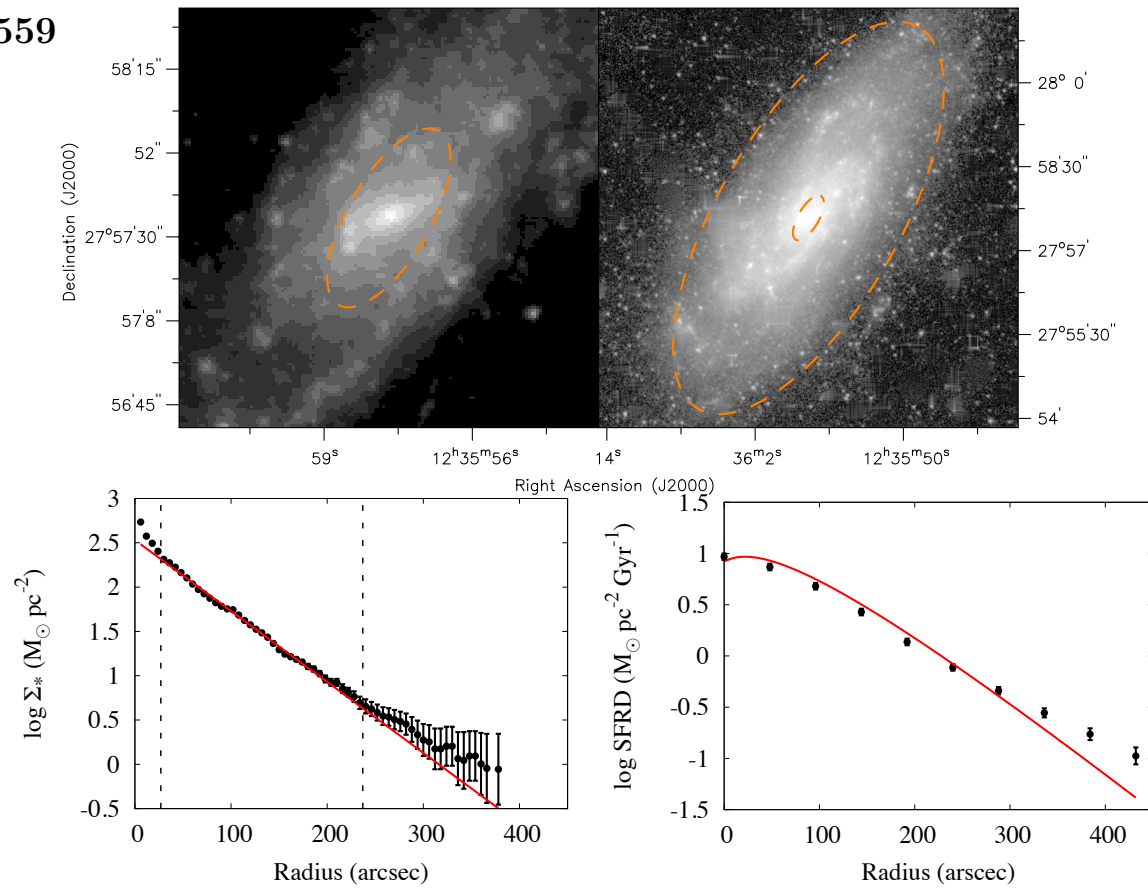


NGC 4536



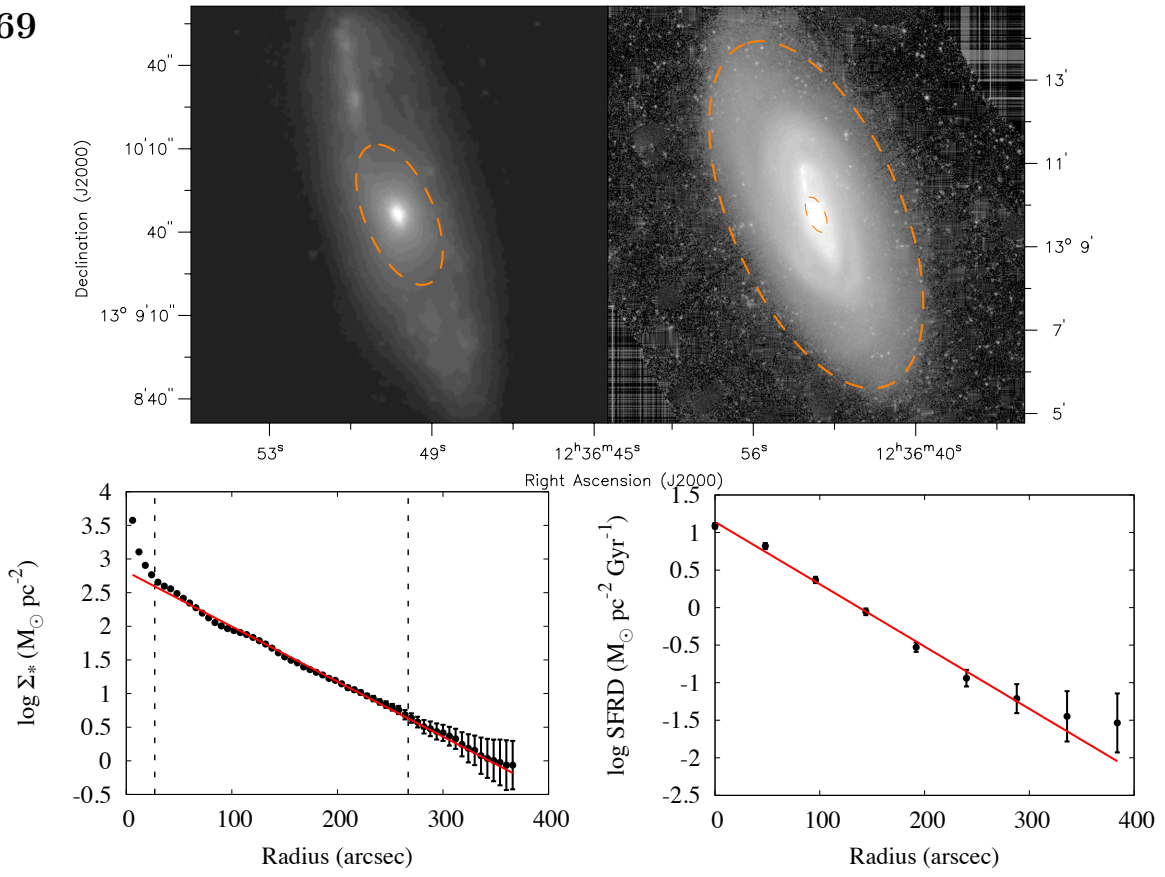
NGC 4536. $3.6 \mu\text{m}$ fit range: 33–219 arcsec.

NGC 4559

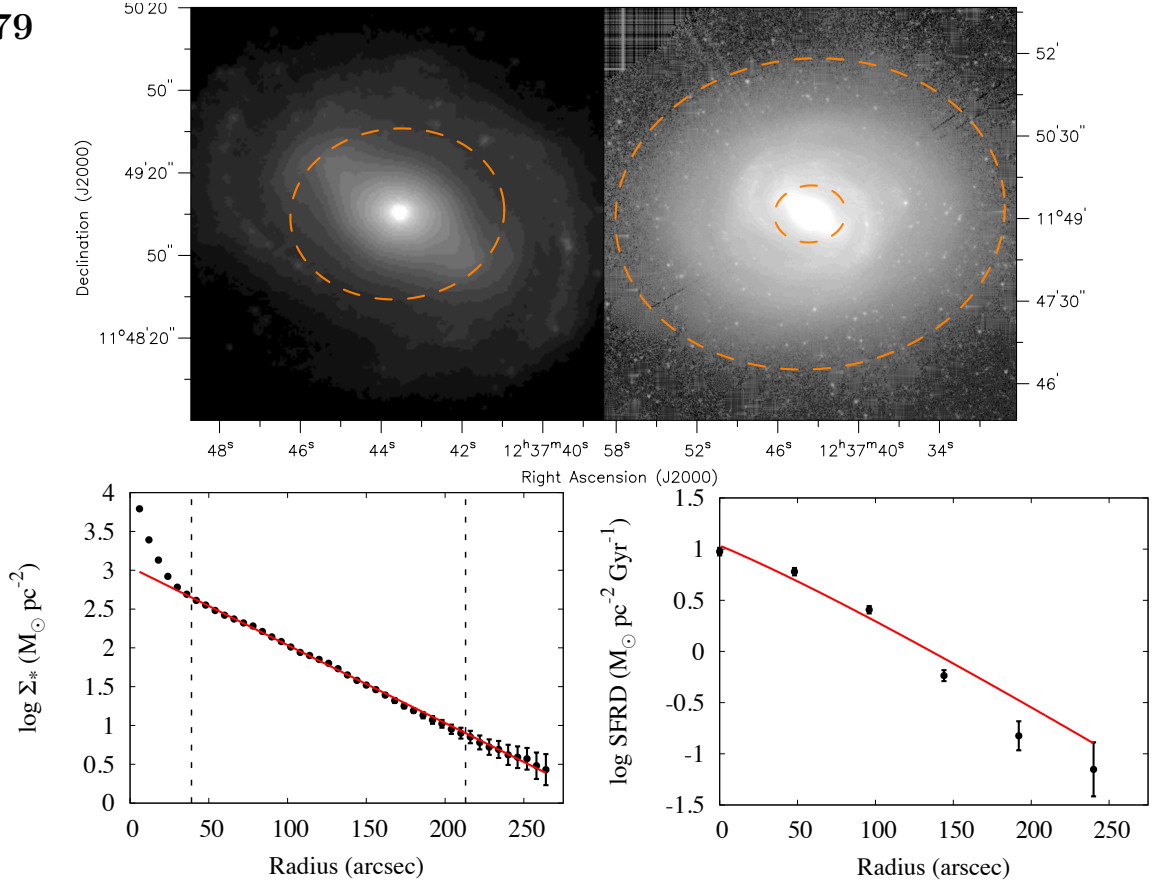


NGC 4559. $3.6 \mu\text{m}$ fit range: 27–237 arcsec.

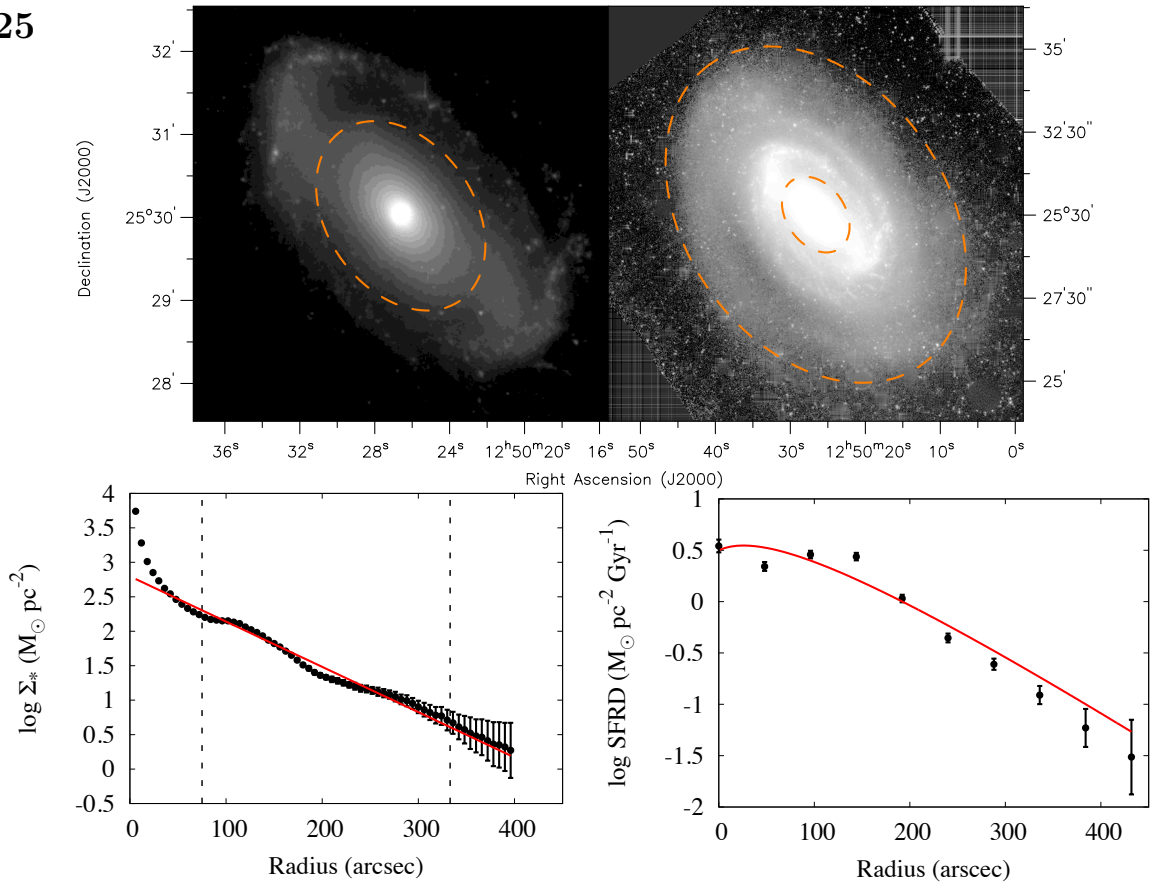
NGC 4569



NGC 4579

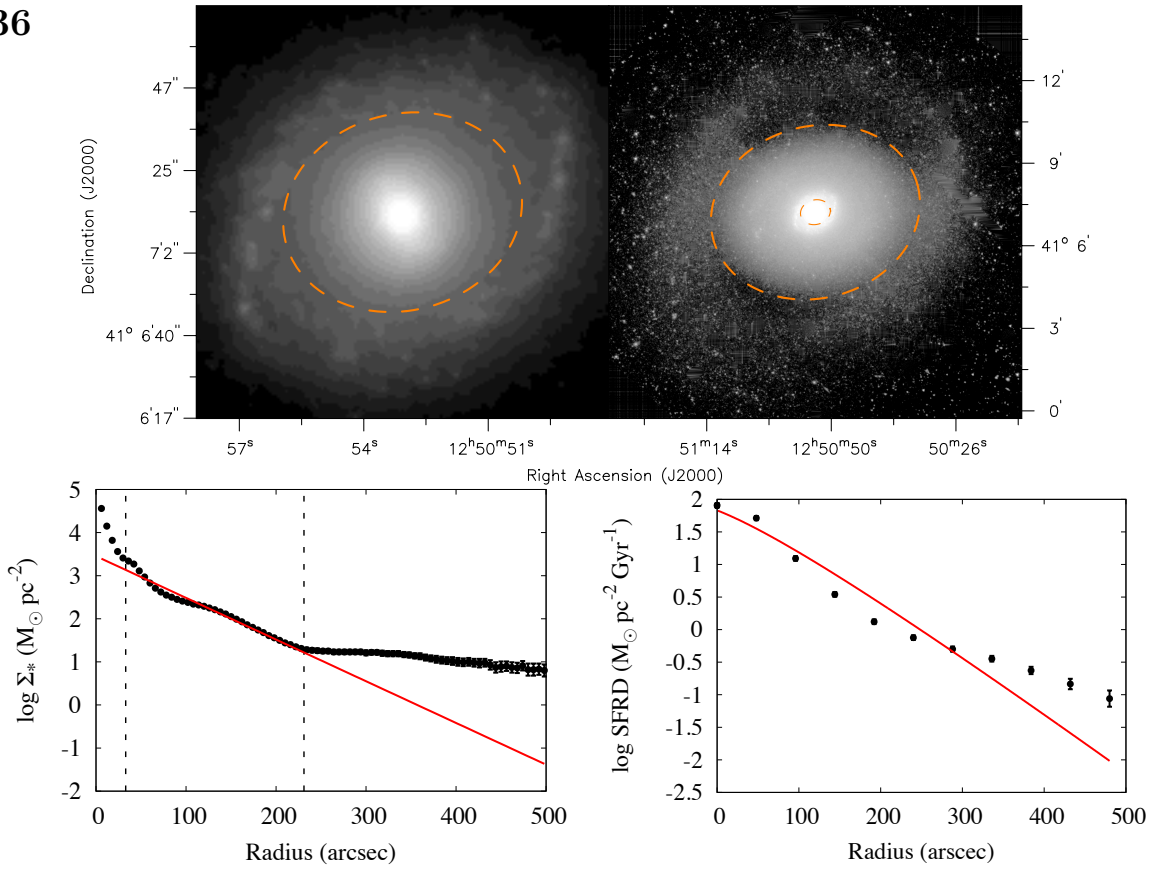


NGC 4725



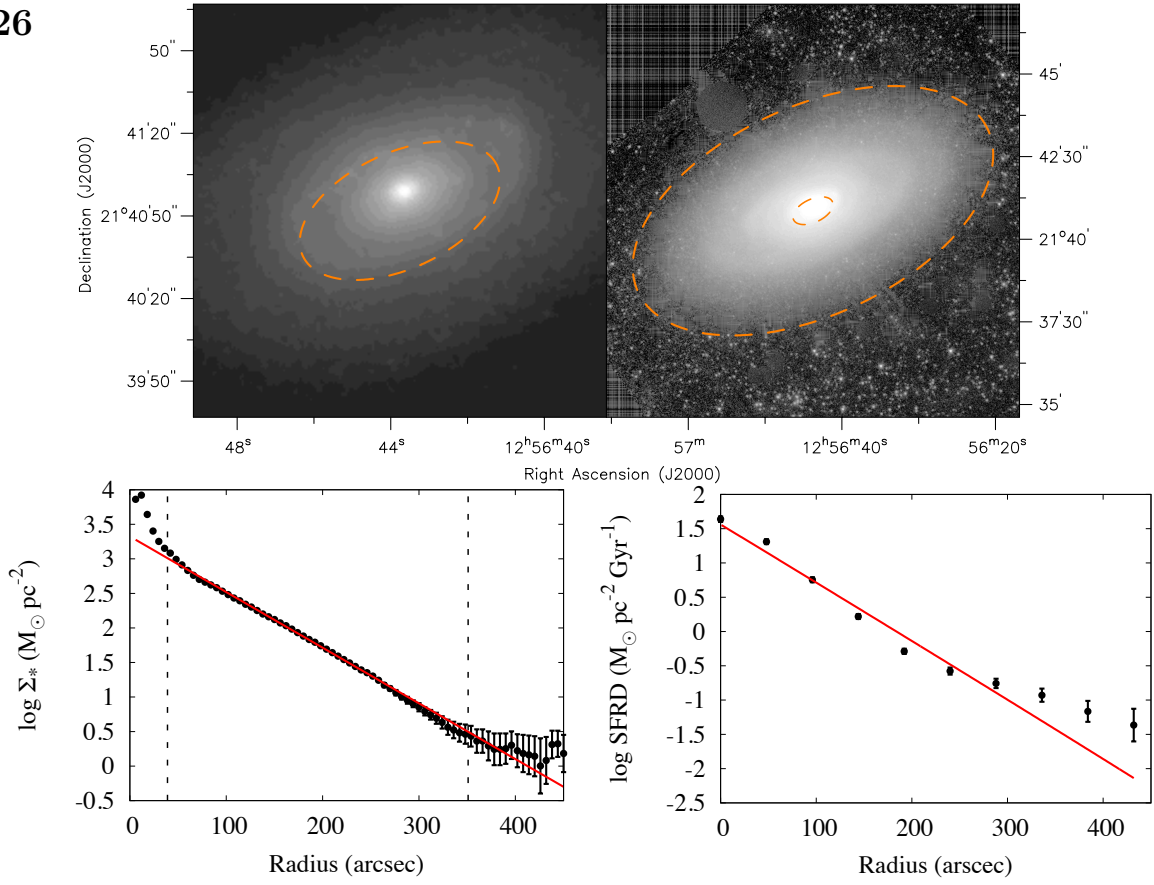
NGC 4725. $3.6 \mu\text{m}$ fit range: 75–333 arcsec.

NGC 4736



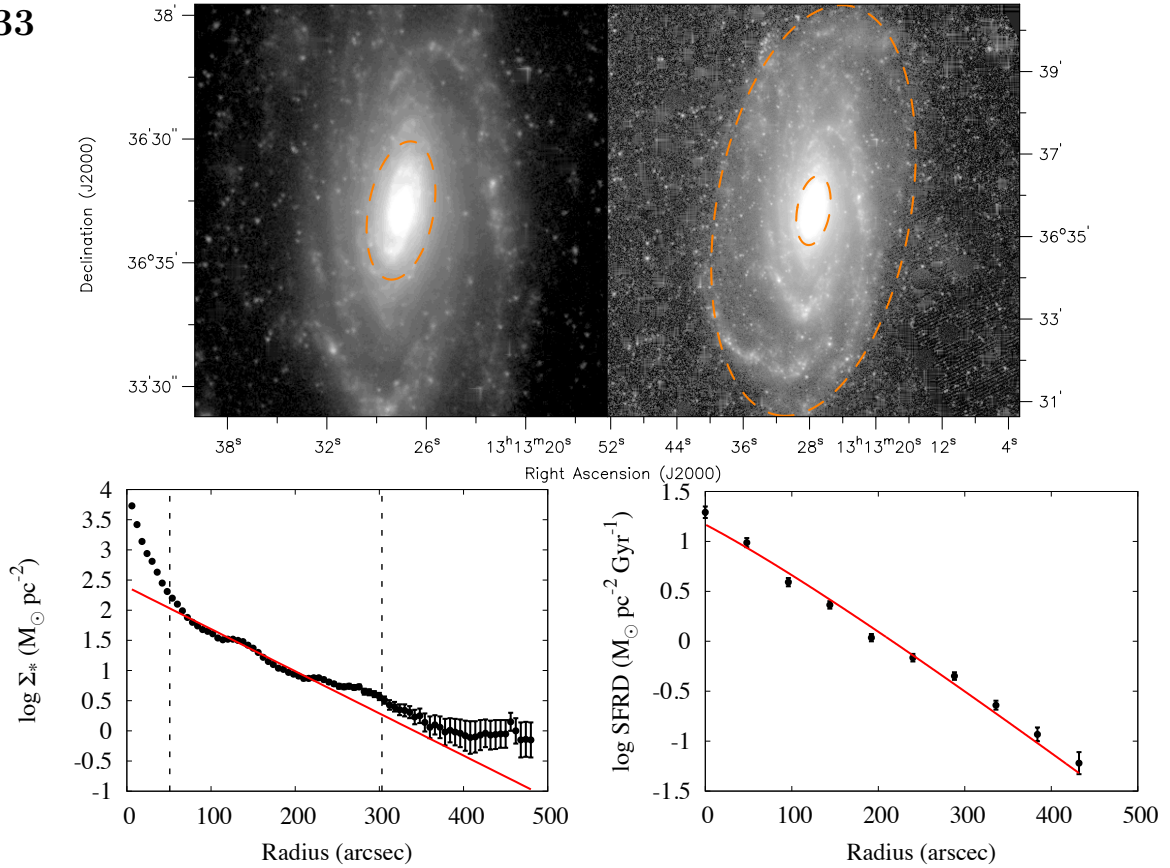
NGC 4736. $3.6 \mu\text{m}$ fit range: 33–231 arcsec. An extended ring is the probable origin of the outstanding outer flattening, which is also visible, though less prominent, in the SFRD profile.

NGC 4826



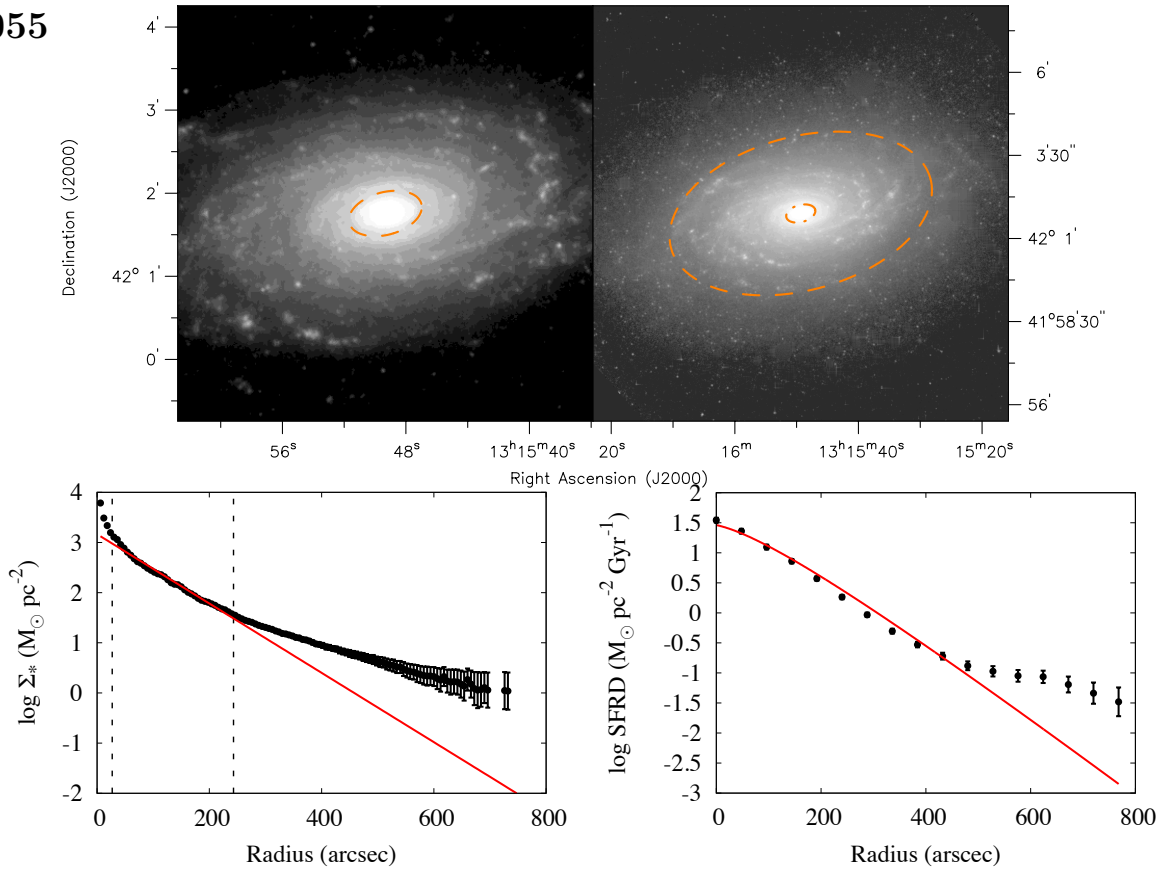
NGC 4826. $3.6 \mu\text{m}$ fit range: 39–351 arcsec. The inner ellipse is chosen both to comprise the bulge and to compensate for a central offset.

NGC 5033



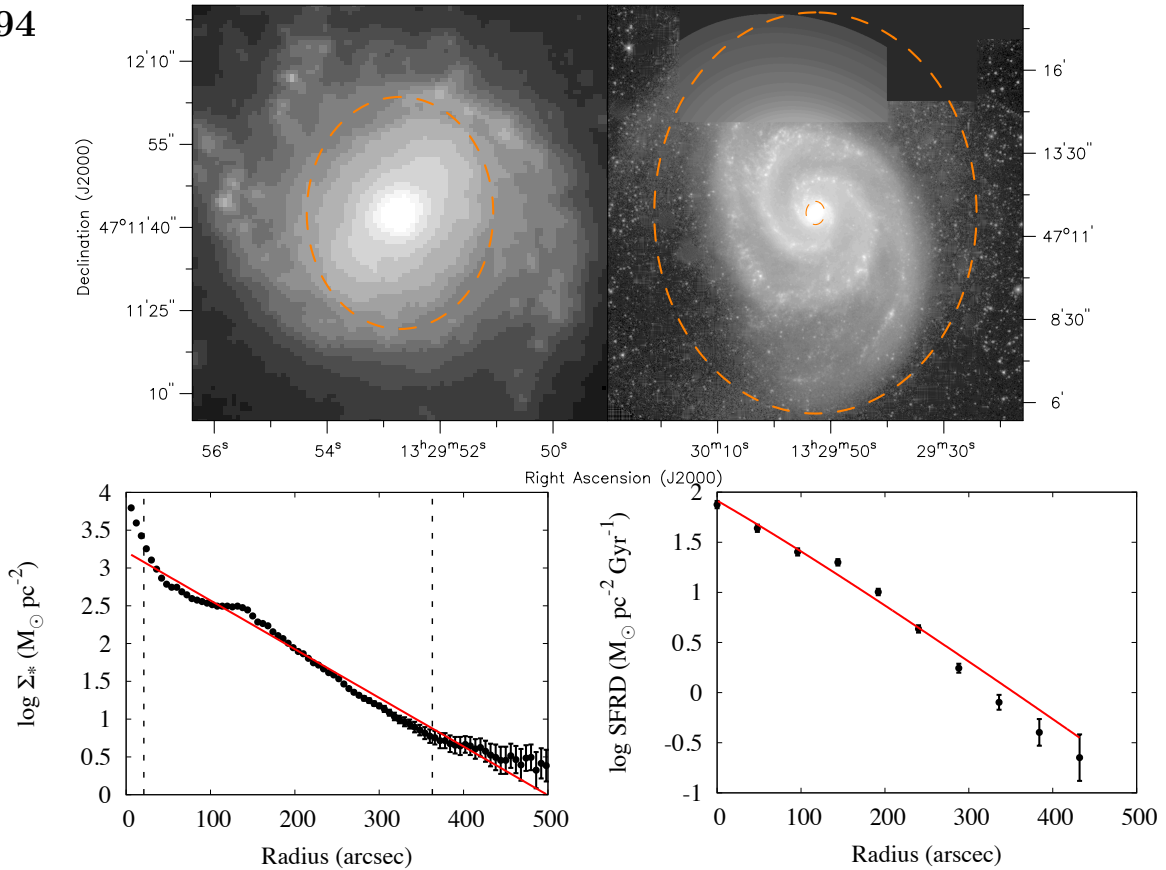
NGC 5033. $3.6 \mu\text{m}$ fit range: 51–303 arcsec. Even if spiral structure can be traced down to very small radii, the inner arms appear to be embedded into a bright spheroidal component, which we exclude from our fit of the disc.

NGC 5055



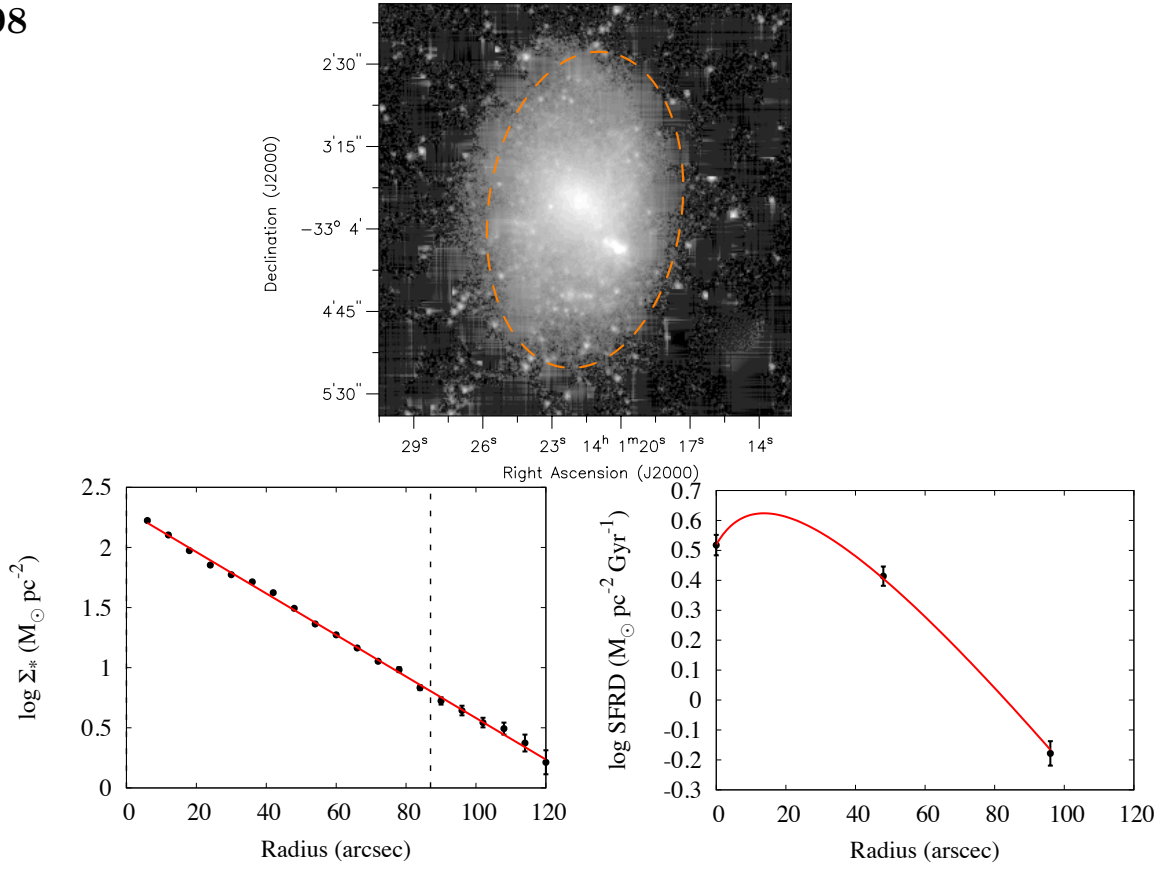
NGC 5055. $3.6 \mu\text{m}$ fit range: 27–243 arcsec. The disc region traced by spiral arms is well described by an exponential. A second disc component, with a greater scalelength and no prominent spiral structure, seems to be present at the periphery. The SFRD follows theoretical expectations out to a remarkably large radius and then in turn exhibits a flattening.

NGC 5194



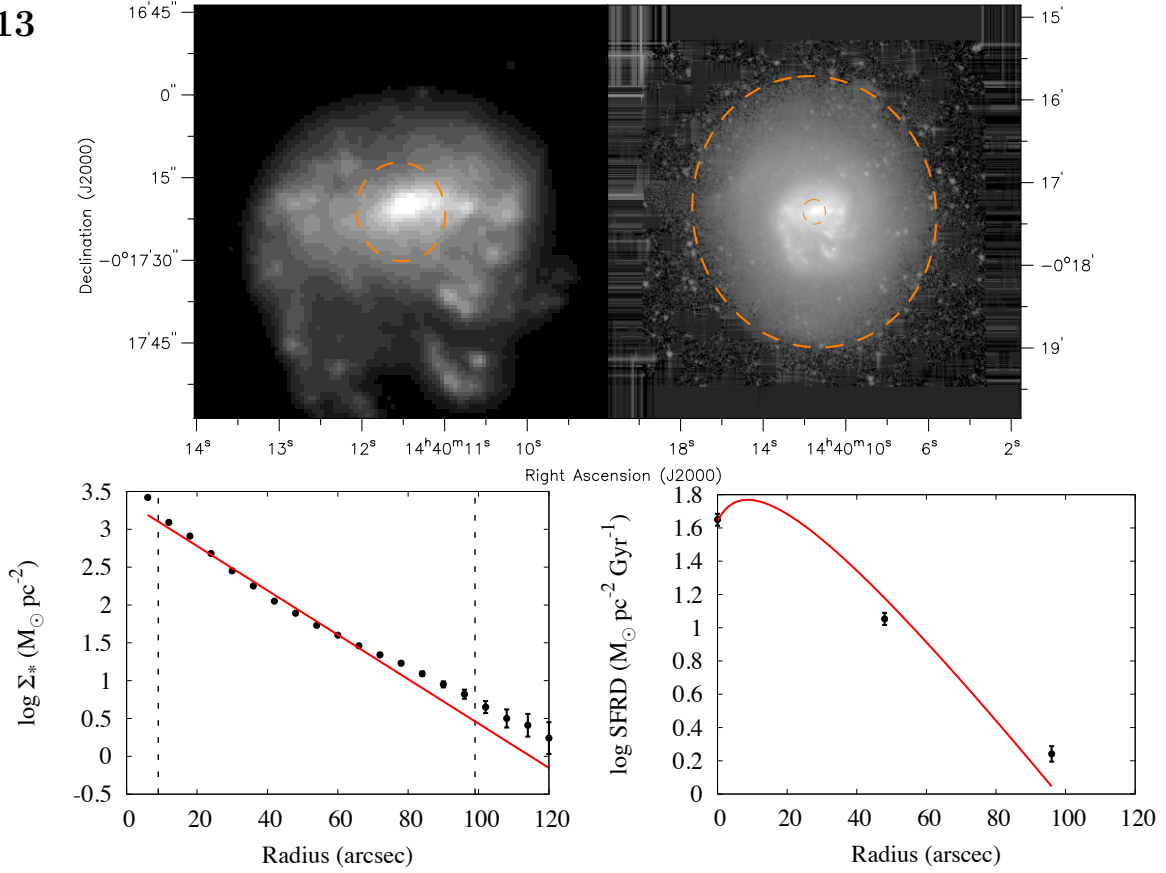
NGC 5194. $3.6 \mu\text{m}$ fit range: 21–363 arcsec. Considering its strong interaction with NGC 5195 (masked out in the northern region of the map), this galaxy shows a surprisingly regular behaviour.

NGC 5398



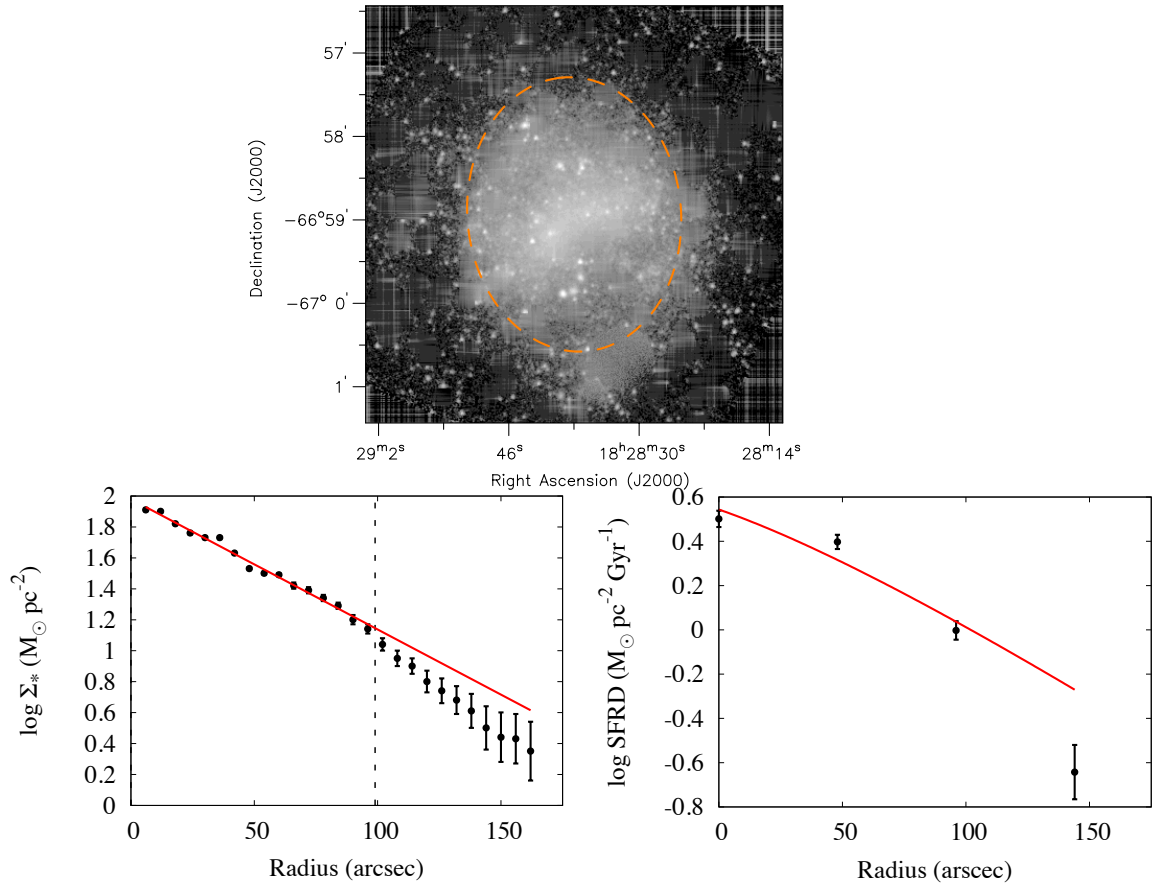
NGC 5398. 3.6 μm fit range: 0–87 arcsec.

NGC 5713



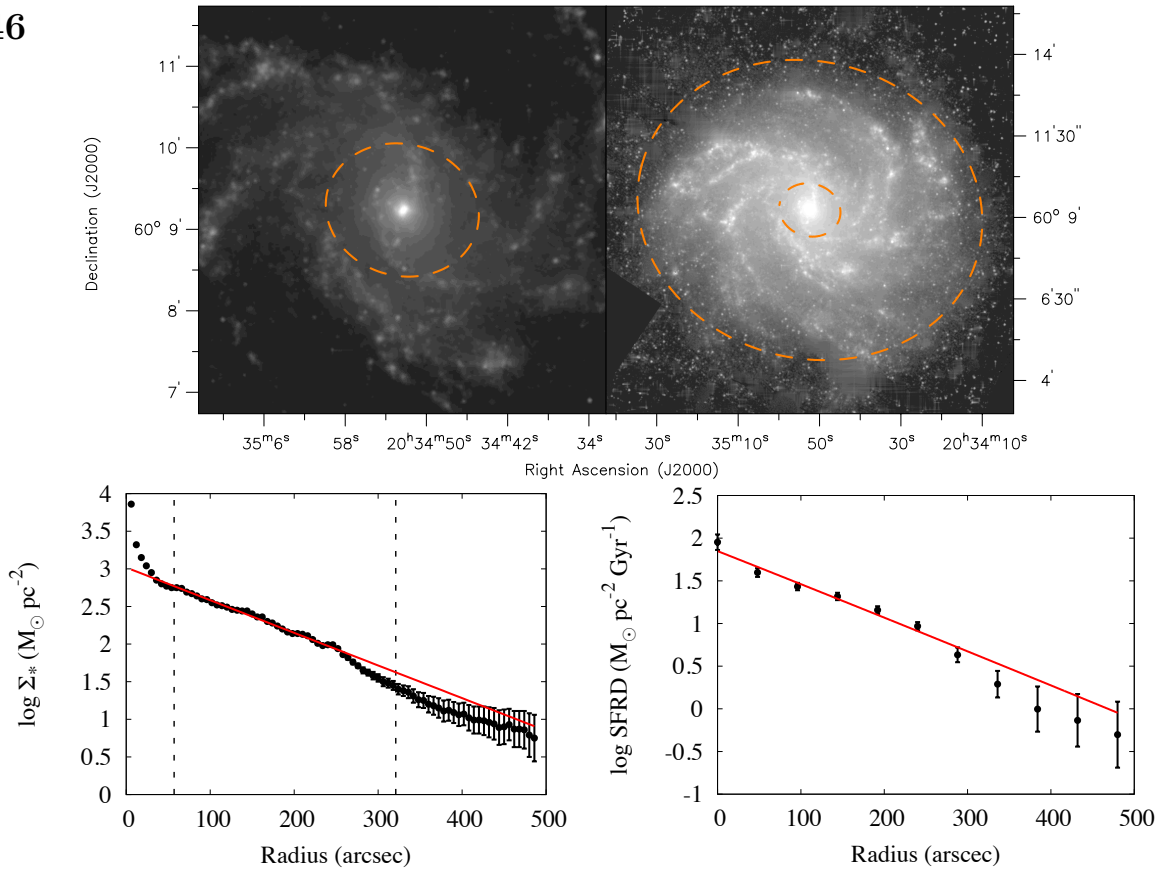
NGC 5713. 3.6 μm fit range: 9–99 arcsec.

IC 4710



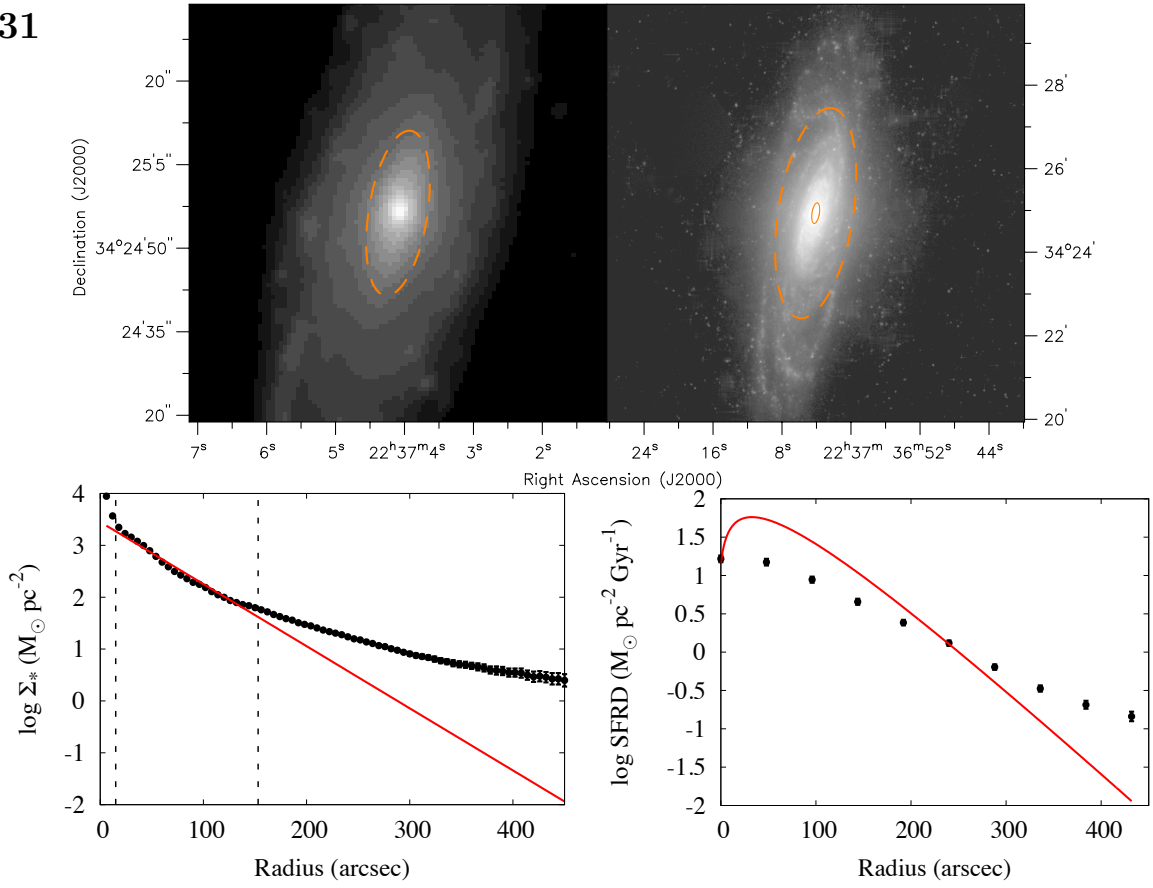
IC 4710. 3.6 μm fit range: 0–99 arcsec. A hint is present for a common downbending in both stellar mass and SFR surface densities.

NGC 6946



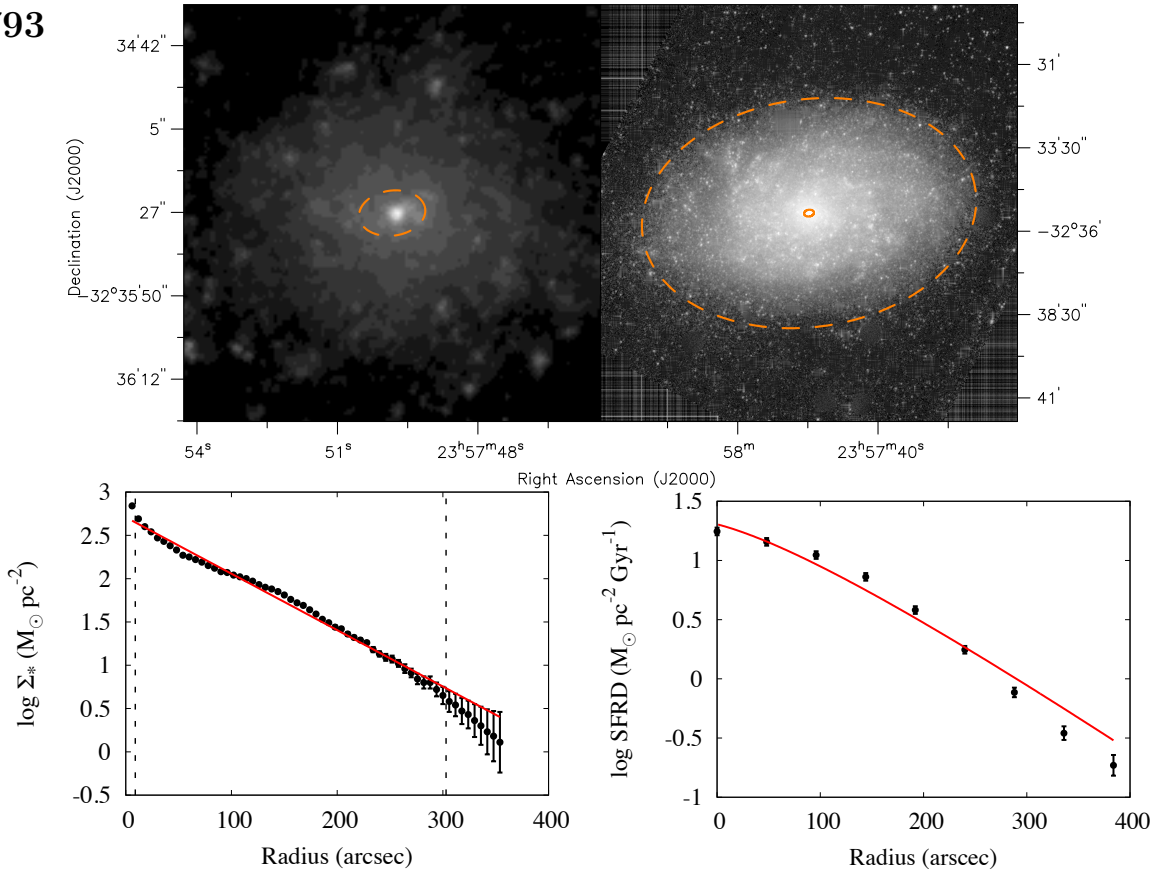
NGC 6946. 3.6 μm fit range: 57–321 arcsec.

NGC 7331



NGC 7331. $3.6 \mu\text{m}$ fit range: 15–153 arcsec. Out of 153 arcsec, the $3.6 \mu\text{m}$ profile abruptly flattens and the isophotes have a very peculiar geometry. The SFRD profile is nearly exponential out to very large radii, but our model fails to reproduce its large scalelength.

NGC 7793



NGC 7793. $3.6 \mu\text{m}$ fit range: 9–303 arcsec; unweighted.