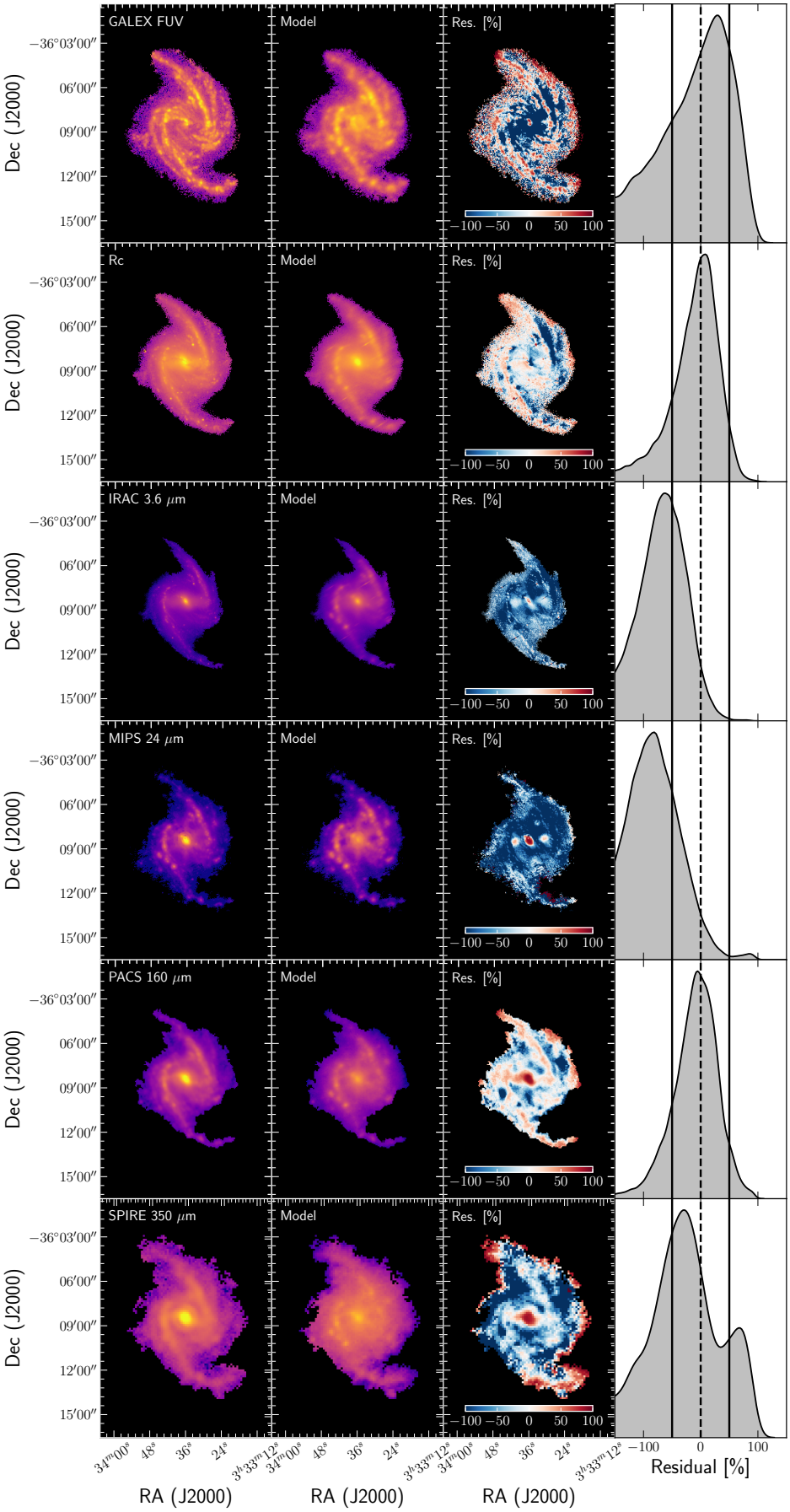

Fig. B.1. Same as Fig. 4 for NGC 1365.

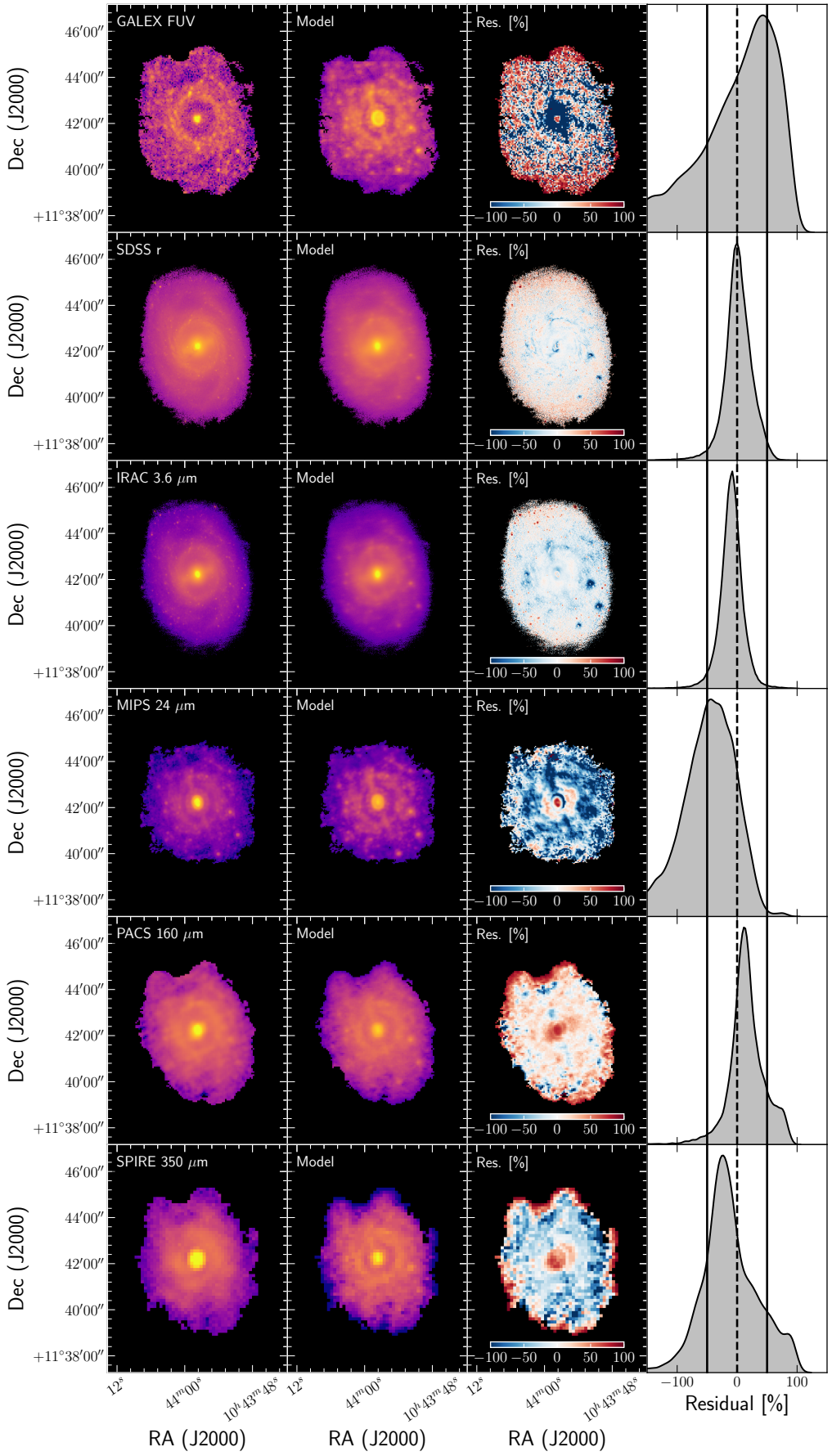

Fig. B.2. Same as Fig. 4 for M 95 but with the SDSS *r* observation used instead of R_C.

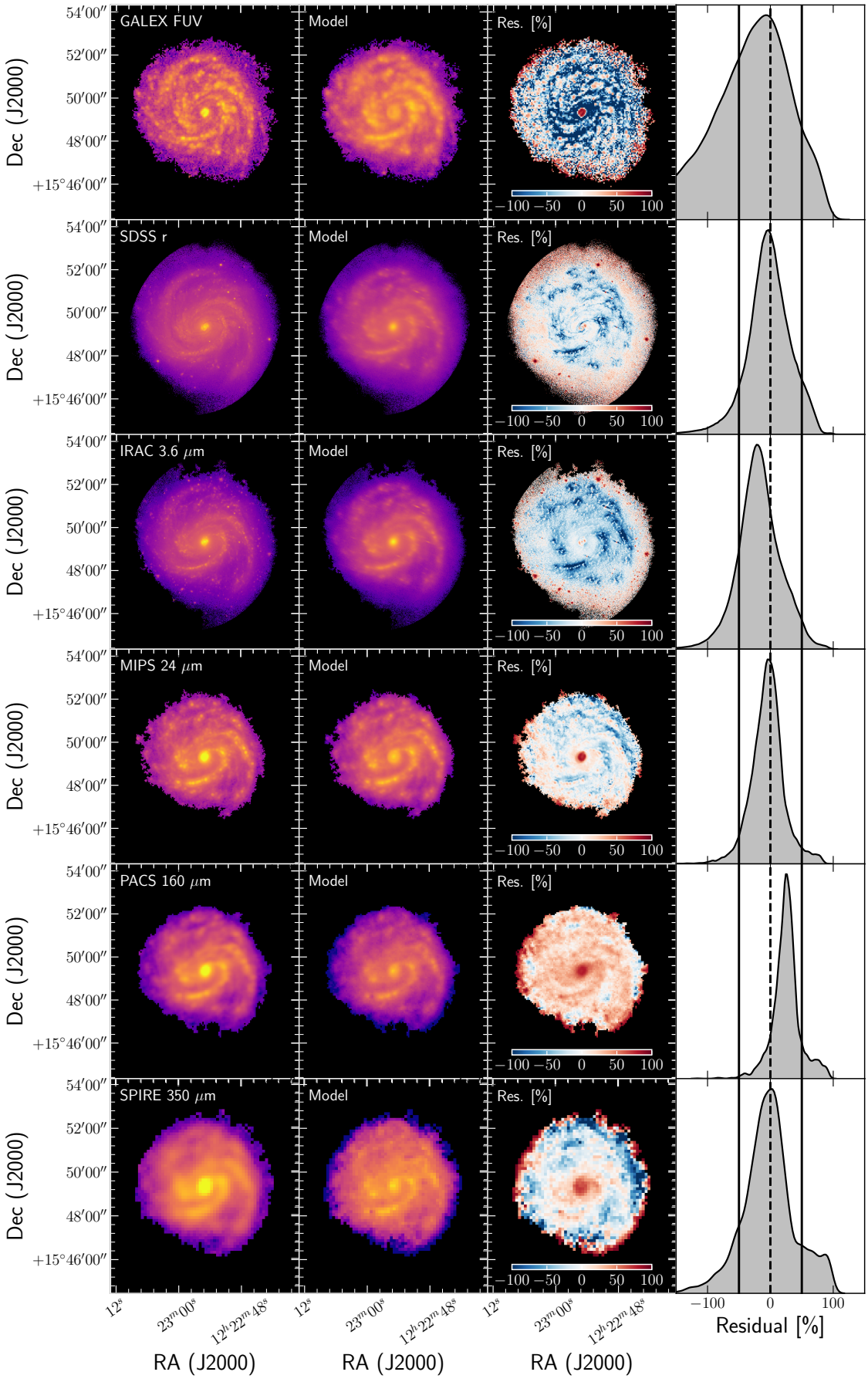

Fig. B.3. Same as Fig. 4 for M 100 but with the SDSS *r* observation used instead of R_C.

Appendix C: Correlation between young heating fraction and sSFR

Table C.1. Relations between sSFR and $f_{\rm young}$.

Galaxy ID	$y = ax + b$		Spearman's coef.	Equation (4)	
	a	b	ρ	a	c
NGC 1365	0.16	1.48	0.75	−0.92	−9.74
M 77	0.12	1.13	0.84	−0.80	−8.75
M 81	0.34	3.48	0.85	−0.72	−8.11
M 83	0.22	2.06	0.85	−0.96	−10.2
M 95	0.29	2.79	0.80	−1.21	−12.8
M 100	0.22	2.04	0.84	−0.83	−8.86

Notes. The relationship in Fig. C.1 is fitted with a power-law: $y = ax+b$; where $y = \log f_{\rm young}$, $x = \log\left[\mathrm{sSFR/yr^{-1}}\right]$, a is the slope and b is the intercept of the best-fitting line, and ρ is the Spearman's rank correlation coefficient. The relationship is also fitted with Eq. (4).

In this section we present the sSFR–$f_{\rm young}$ relation for each galaxy and fit the bulk of the data cells using Eq. (4), as well as a power-law. The best-fitting parameters of both fitting methods are given in Table C.1 along with the Spearman's rank correlation coefficient (ρ). The strong correlation between the two quantities is justified by the fact that ρ takes values ≥0.80. The only exception is NGC 1365 with $\rho = 0.75$, however the correlation still remains strong. The best-fitting power-law for M 81 was given in Verstocken et al. (2020). An interesting result we notice here is that the slope of the power-law becomes more and more flat as the bulk of data cell values shifts towards higher sSFR and $f_{\rm young}$ values.

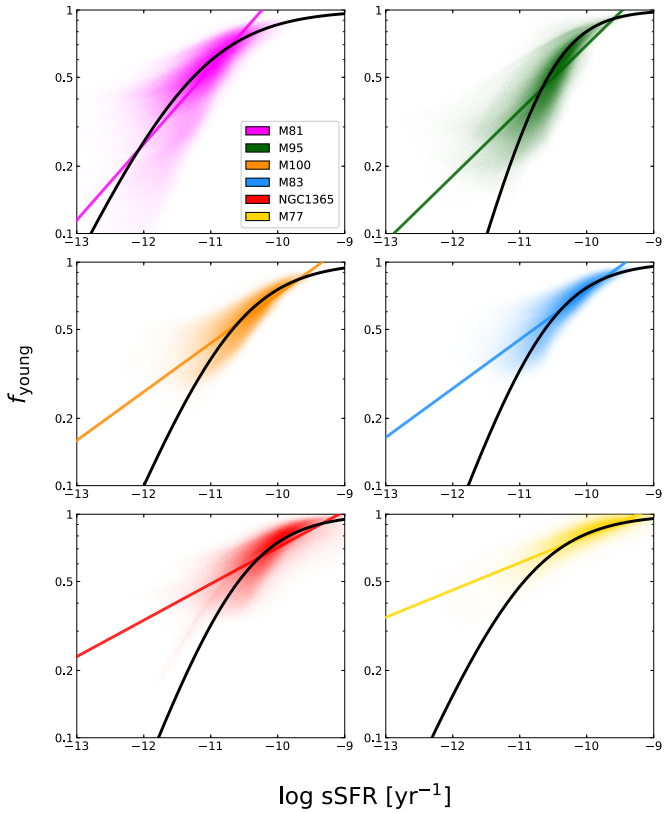

Fig. C.1. Relation between sSFR and $f_{\rm young}$, shown for the radiation transfer models of: NGC 1365, M 83, M 95, M 100 (this work); M 81 (Verstocken et al. 2020); and M 77 (Viaene et al. 2020). Each galaxy dataset is assigned with a different colour indicated in the lower right corner of the first panel. The solid black line shows the fit from Eq. (4) through the bulk of data cells of every galaxy. Each coloured line shows the best-fitting power-law through the bulk of data cells of every galaxy.