



Publication Year	2021
Acceptance in OA	2022-03-29T09:12:25Z
Title	A nearby galaxy perspective on dust evolution. Scaling relations and constraints on the dust build-up in galaxies with the DustPedia and DGS samples
Authors	Galliano, Frédéric, Nersesian, Angelos, BIANCHI, SIMONE, De Looze, Ilse, Roychowdhury, Sambit, Baes, Maarten, CASASOLA, VIVIANA, Cassará, Letizia P., Dobbels, Wouter, Fritz, Jacopo, Galametz, Maud, Jones, Anthony P., Madden, Suzanne C., Mosenkov, Aleksandr, Xilouris, Emmanuel M., Ysard, Nathalie
Publisher's version (DOI)	10.1051/0004-6361/202039701
Handle	http://hdl.handle.net/20.500.12386/31987
Journal	ASTRONOMY & ASTROPHYSICS
Volume	649

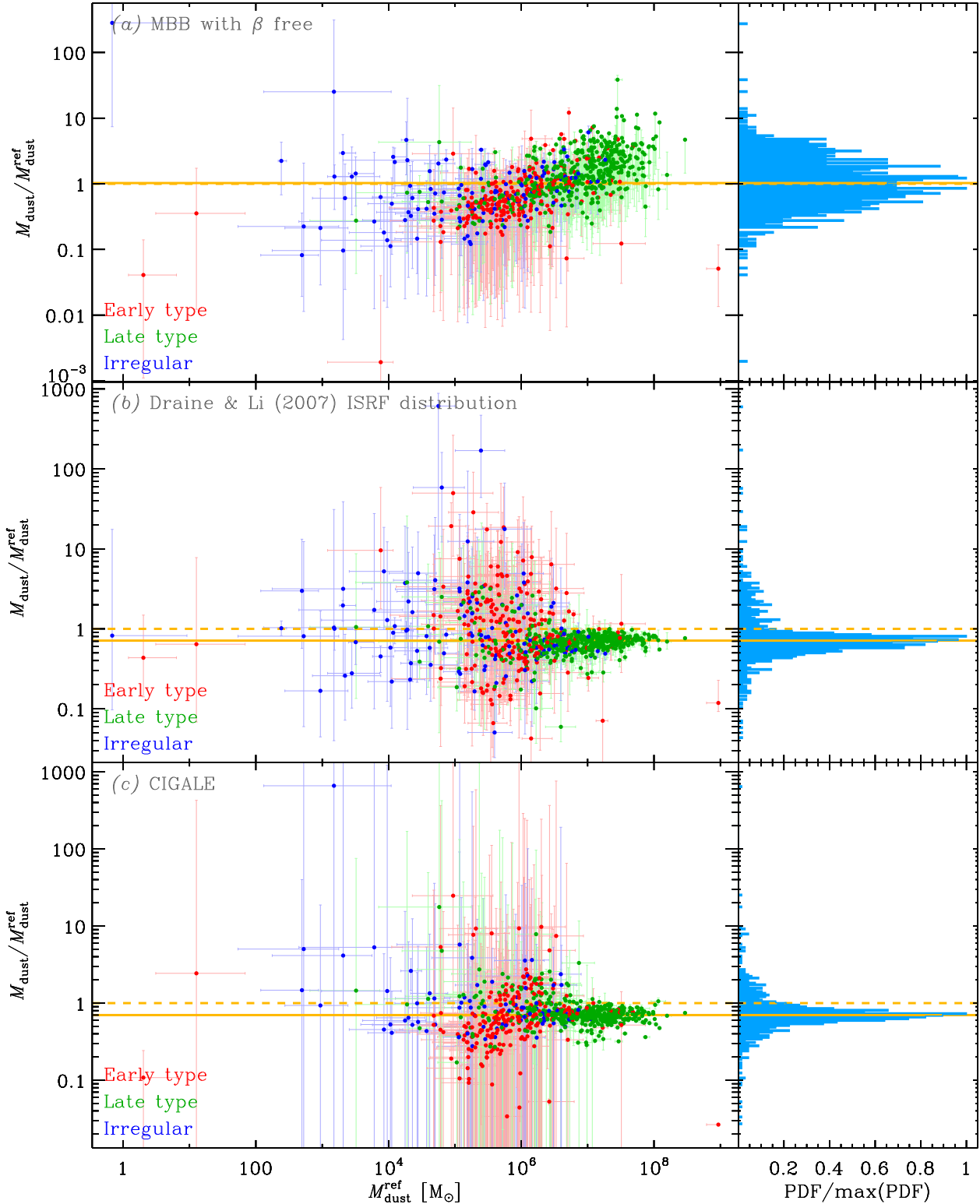


Fig. 6. Same as Fig. 4. *First two panels:* influence of various dust model assumptions as in Fig. 4. *The other panel* is a comparison with results from a previous work done using the same sample but different method.

The scattered sources are underestimates, for similar reasons as the least-squares example. The amplitude of the scatter is however smaller than for the least-squares run. In addition, even the most extremely scattered sources are 2σ -consistent with the 1:1 relation. This is because a Bayesian method samples the likelihood as a function of the parameters, but stays conditional on the data, while a frequentist approach (e.g., least-squares) sam-

ples the likelihood as a function of the data, thus considering data that have not actually been observed, leading to biases (e.g., Jaynes 1976; Wagenmakers et al. 2008).

No Planck and IRAS data. To understand the role of the far-IR coverage, we have fit the sample of Sect. 2 without the *Planck* and IRAS data, using the physical model of Sect. 3.1.