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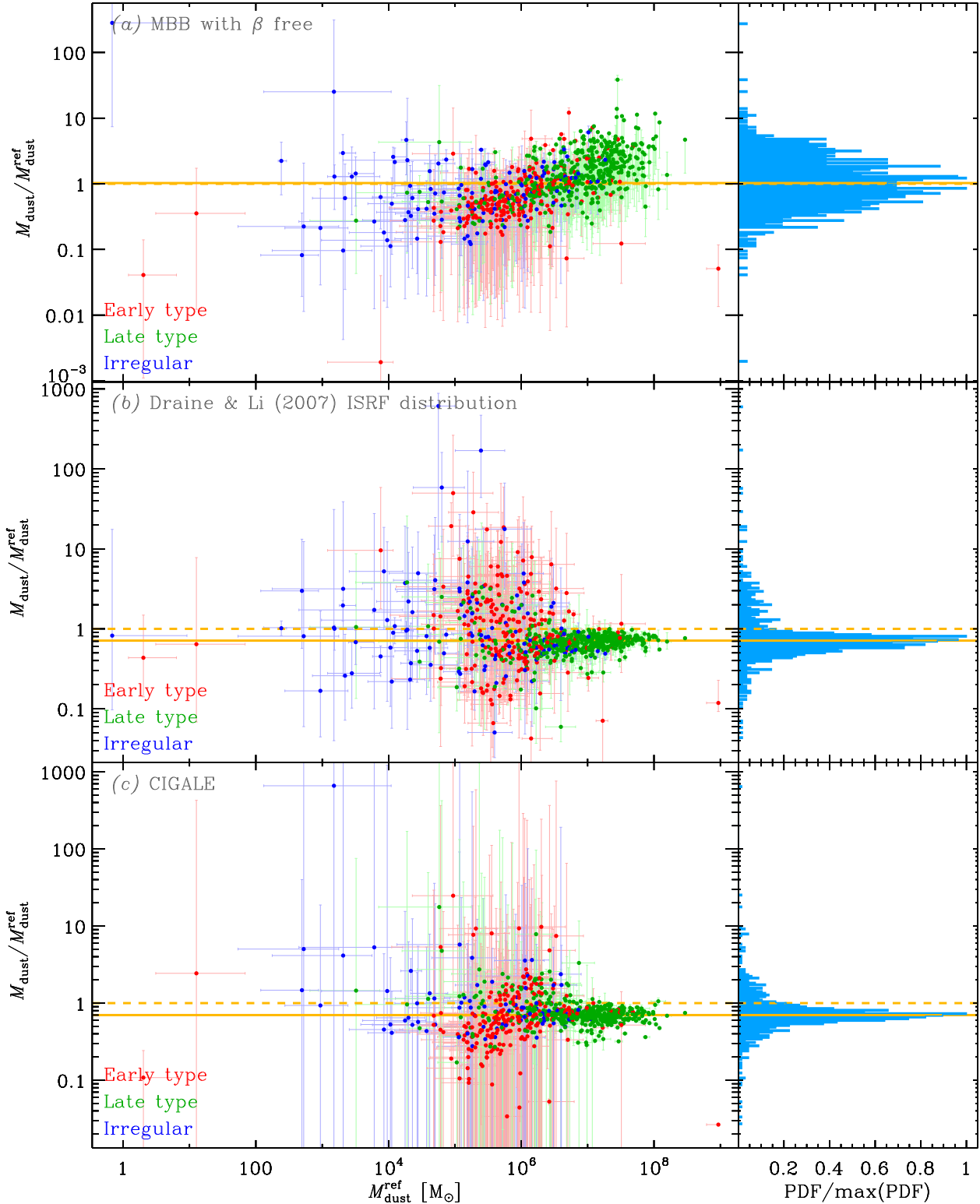


Fig. 6. Same as Fig. 4. *First two panels:* influence of various dust model assumptions as in Fig. 4. *The other panel* is a comparison with results from a previous work done using the same sample but different method.

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.