

Atlas of Surface Mass Density and Mass-to-Luminosity Ratio in Spiral Galaxies — Supplementary Archive for Sofue (2018) —

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Abstract

This is a supplementary archive of our paper (Sofue 2018), and presents radial profiles of the surface mass density (SMD) in spiral galaxies directly calculated by using rotation curves (RC) on two assumptions of flat-disk (SMD-F) and spherical mass distributions (SMD-S). The SMDs are combined with surface photometries to derive radial variations of the mass-to-luminosity ratio (ML) in w- and r-bands. Figure 1 presents SMD-F, SMD-S and RC for S sample galaxies (Sofue 2016); figure 2 (Cont.), same for P sample (Courteau et al. 1996, 1997); figure 3 (Cont.) shows ML-F and ML-S in w-band for P sample; and figure 4 (Cont.), same in r-band for C sample.

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Fig. 1. SMD-F/S (thick/dashed lines) calculated for RC (thin lines) for 211 S-sample galaxies (Sofue 2016).

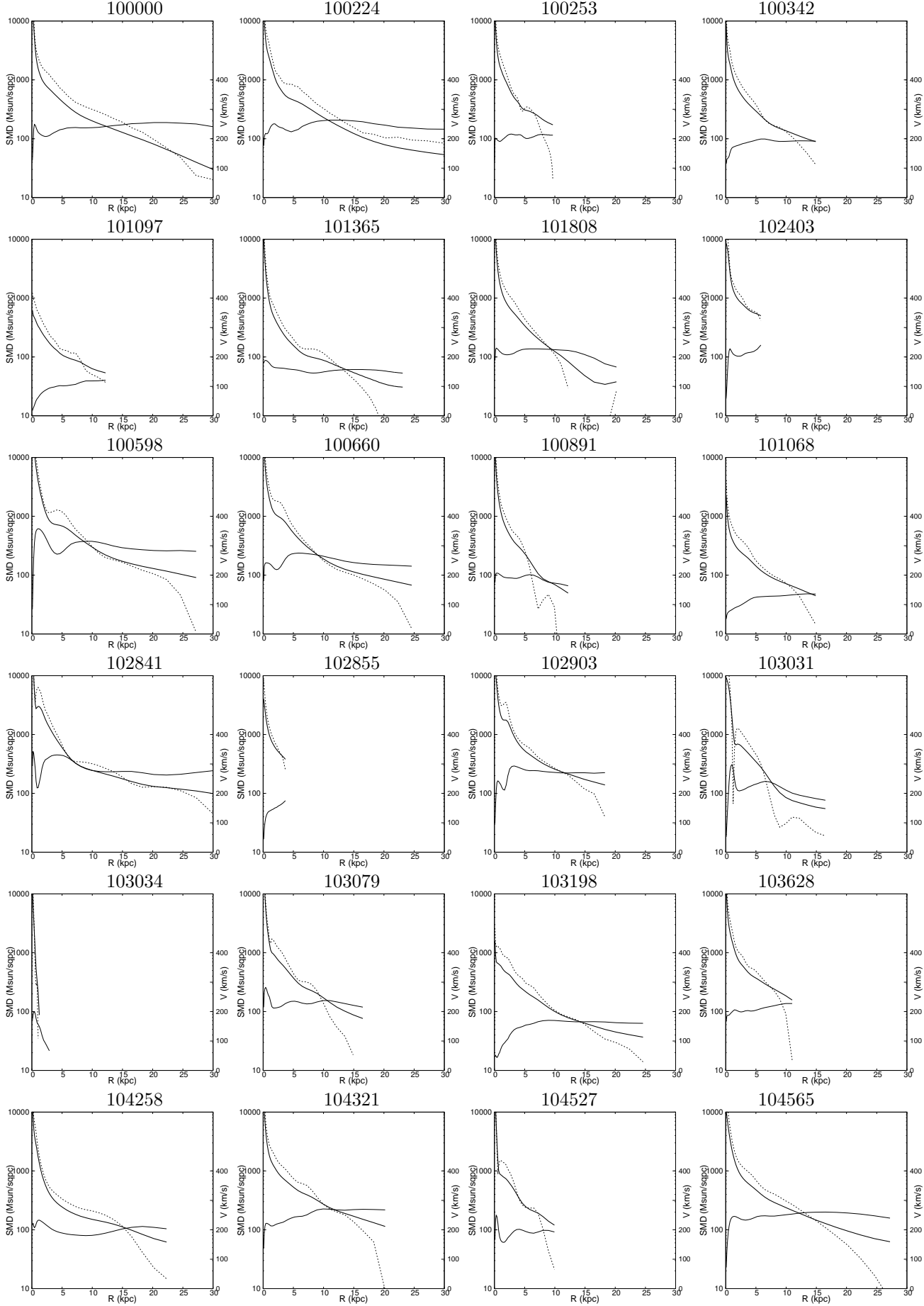


Fig. 1 (Cont.).

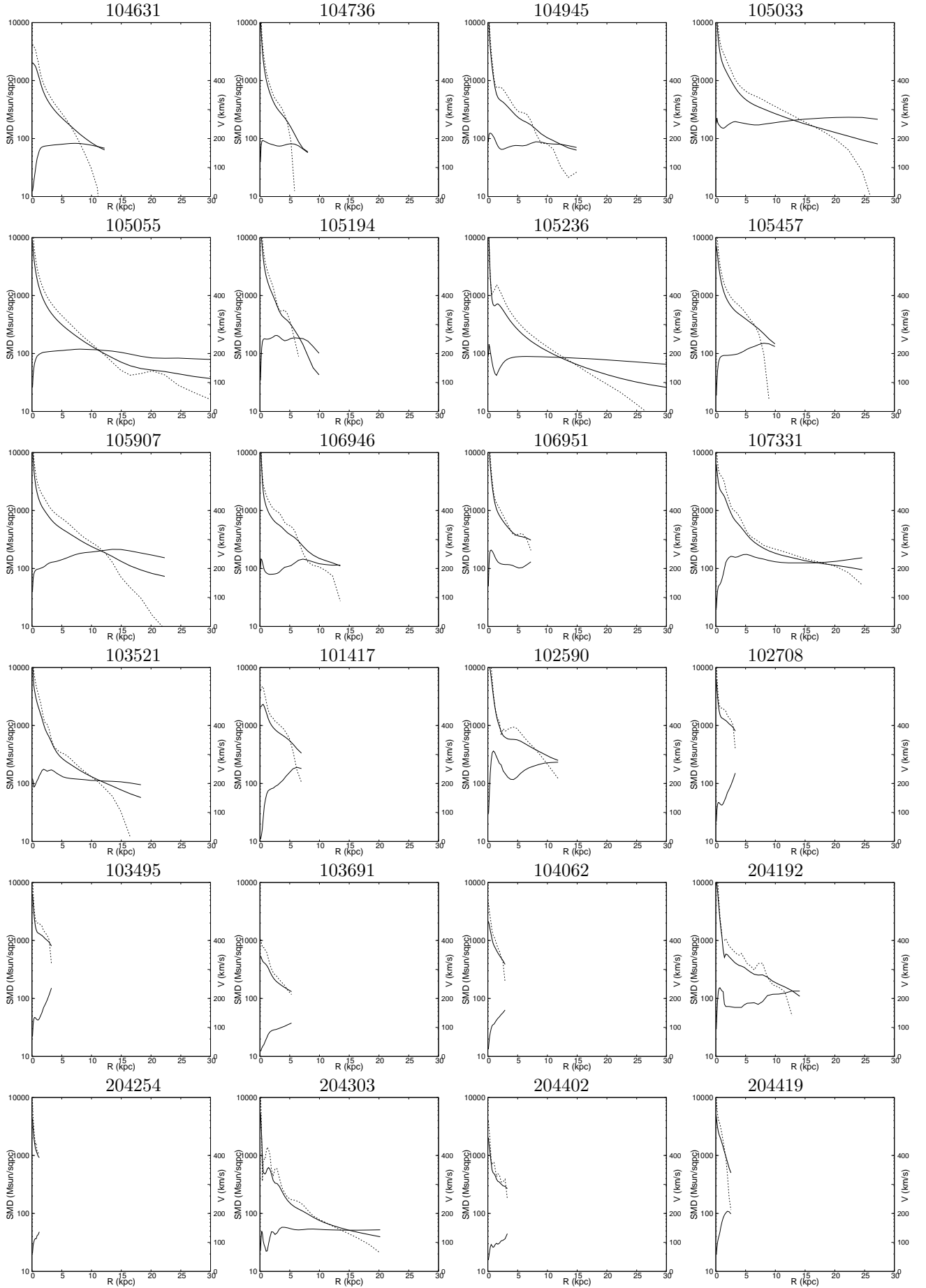


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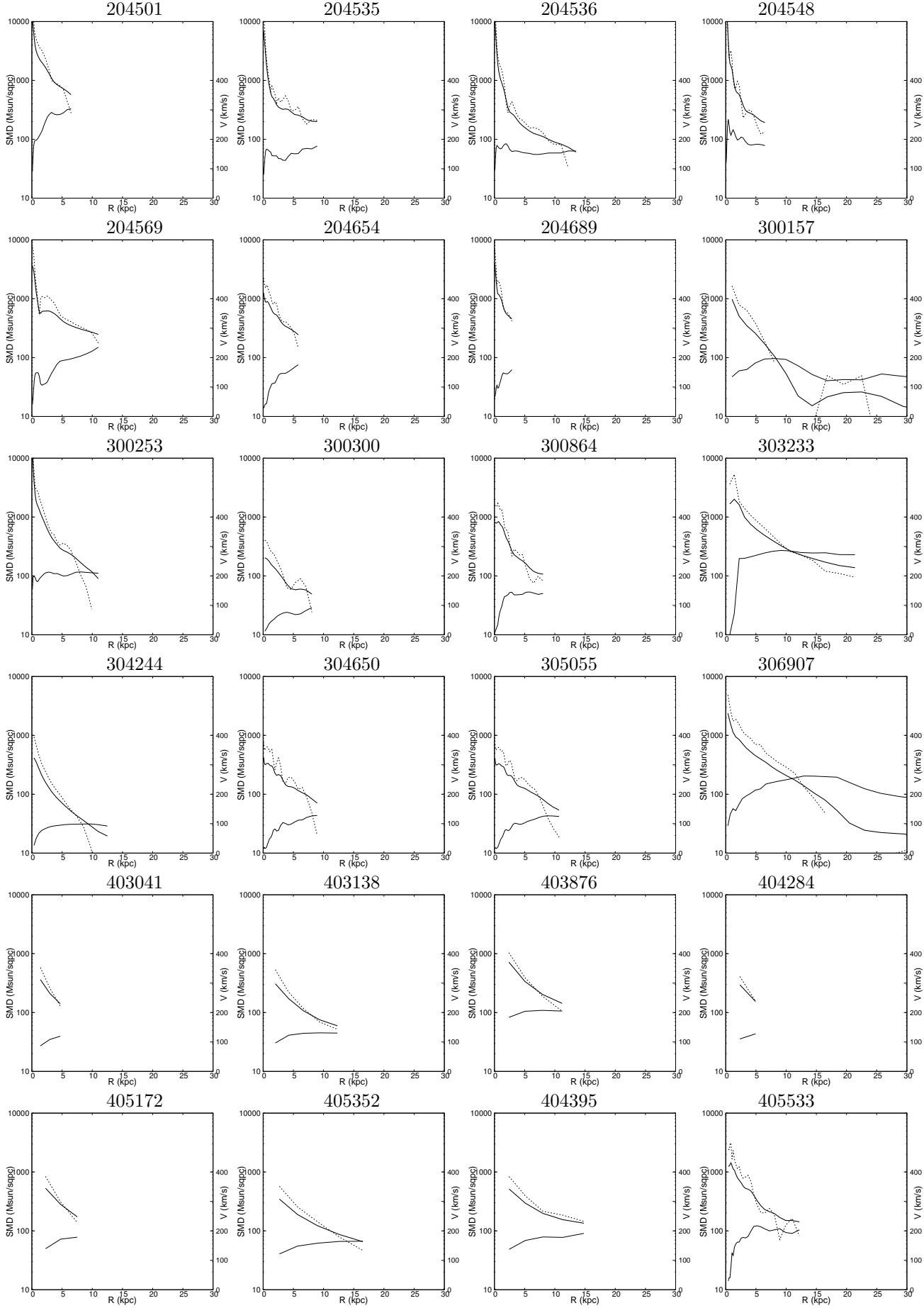


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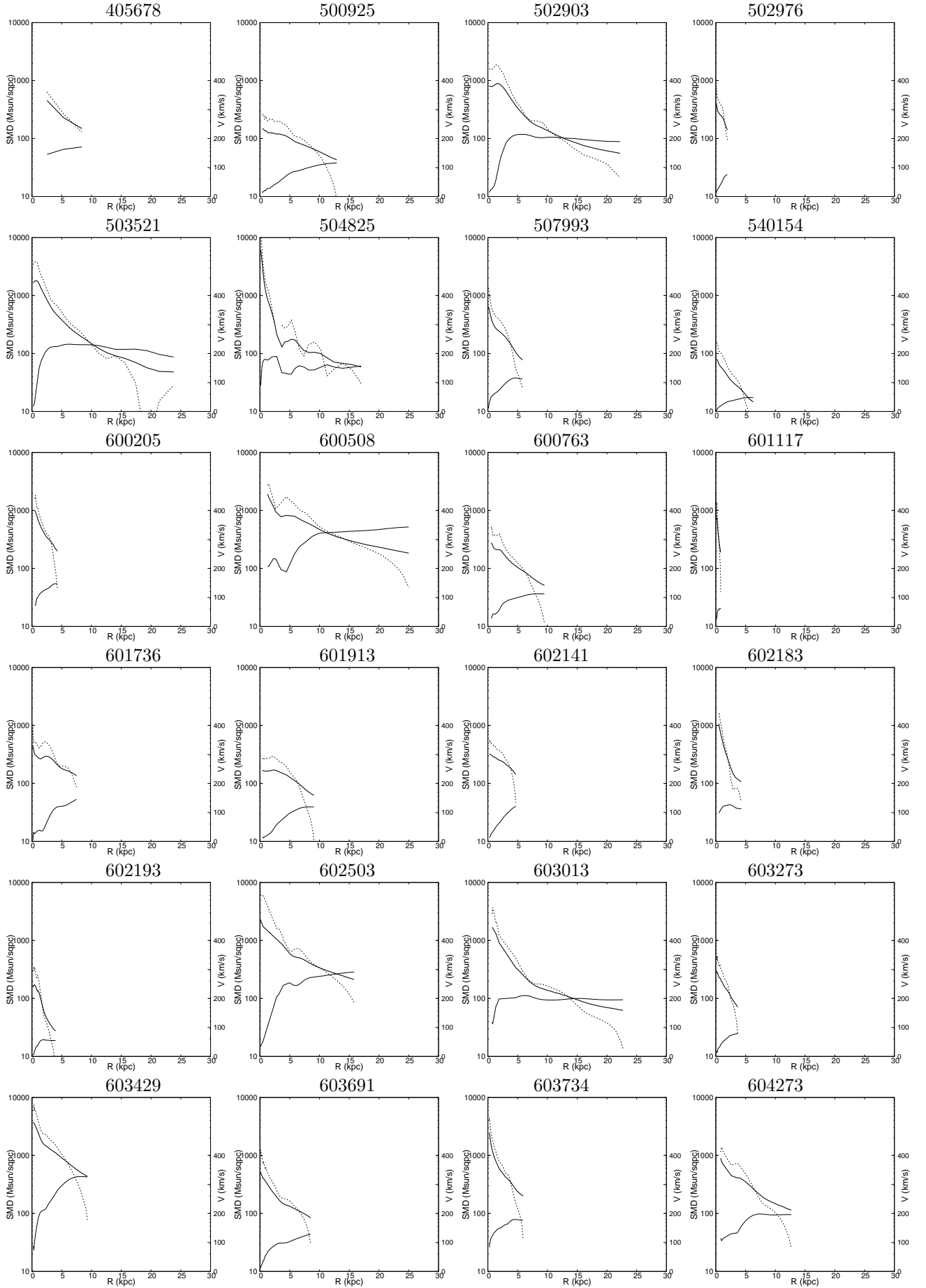


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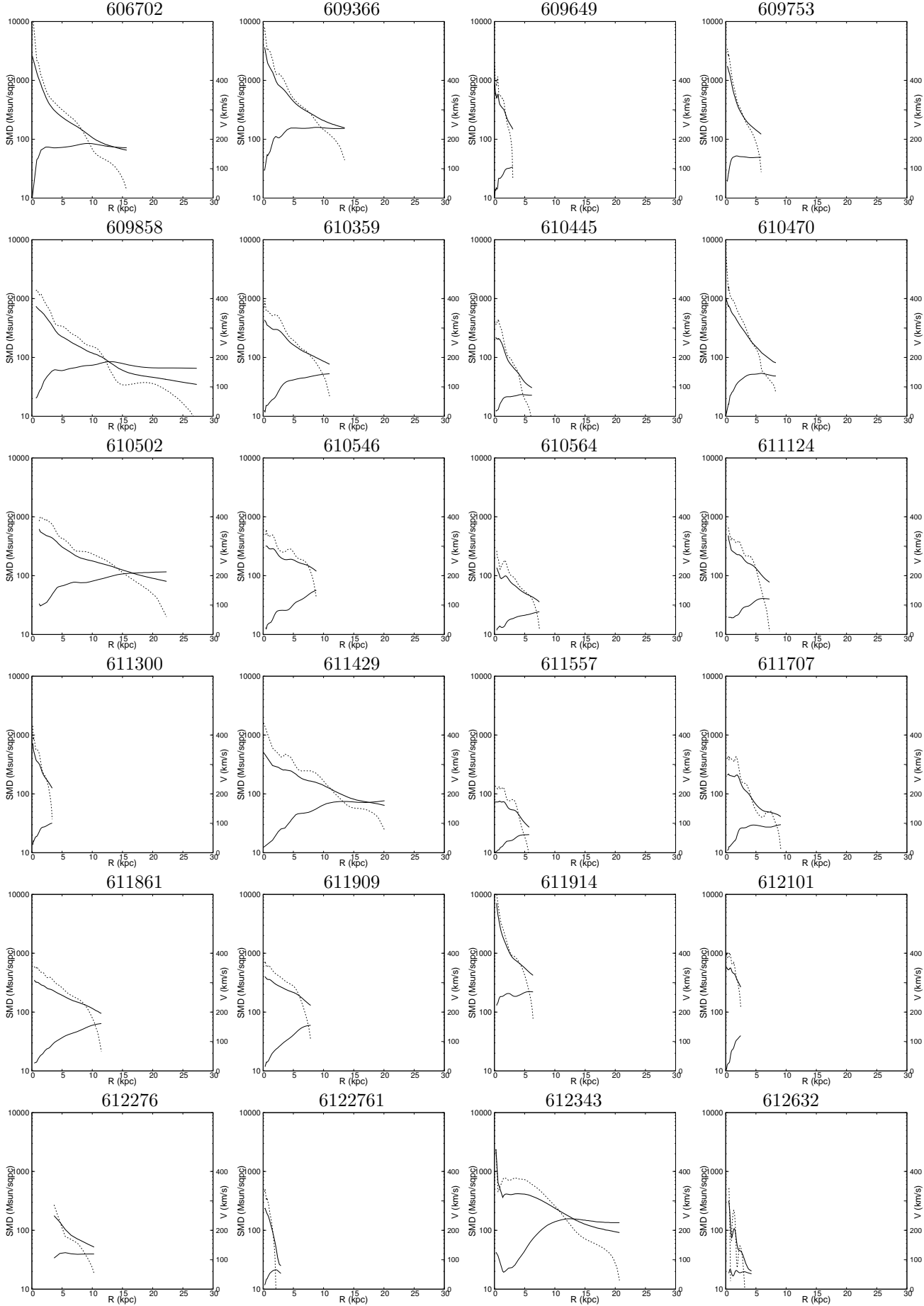


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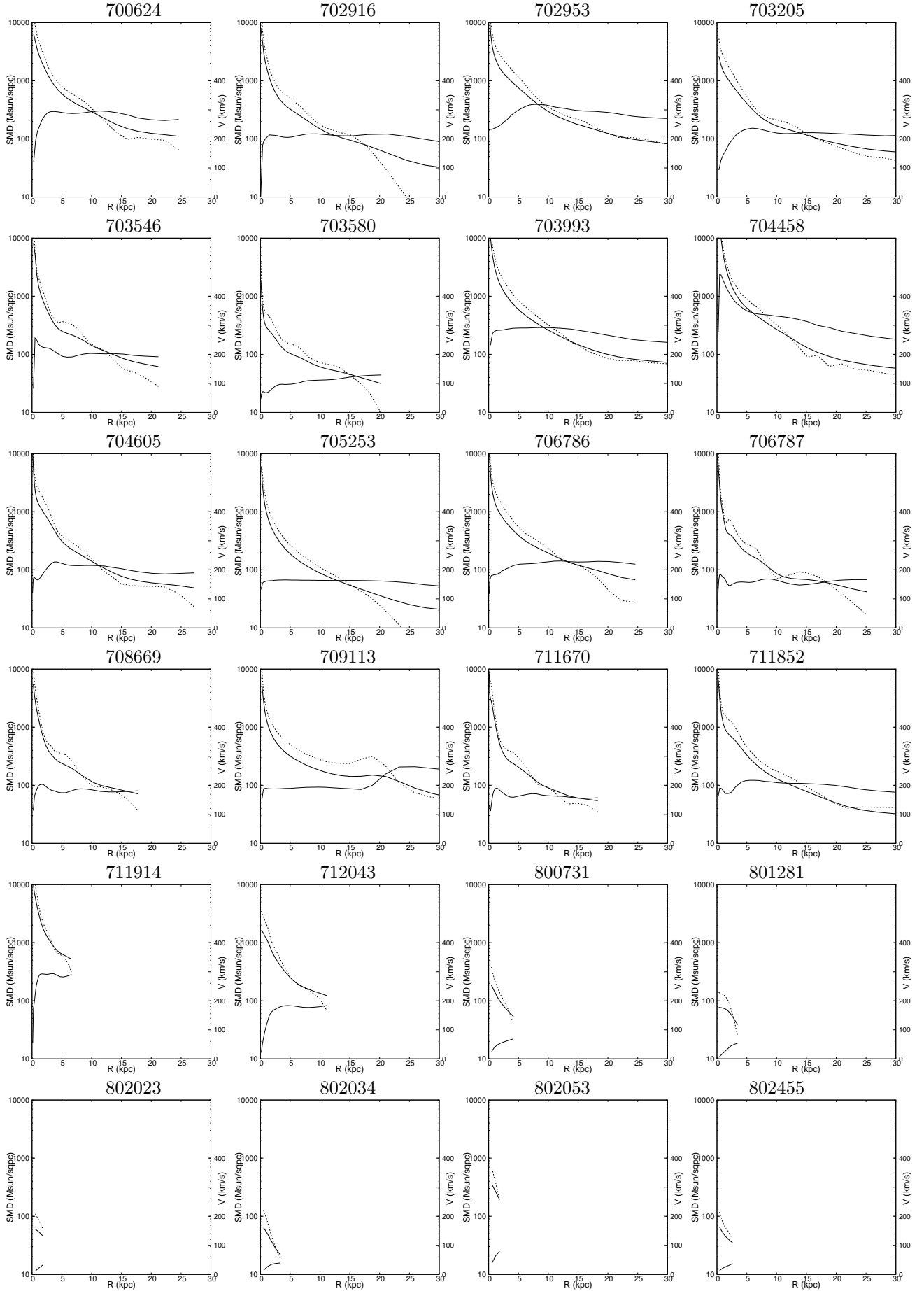


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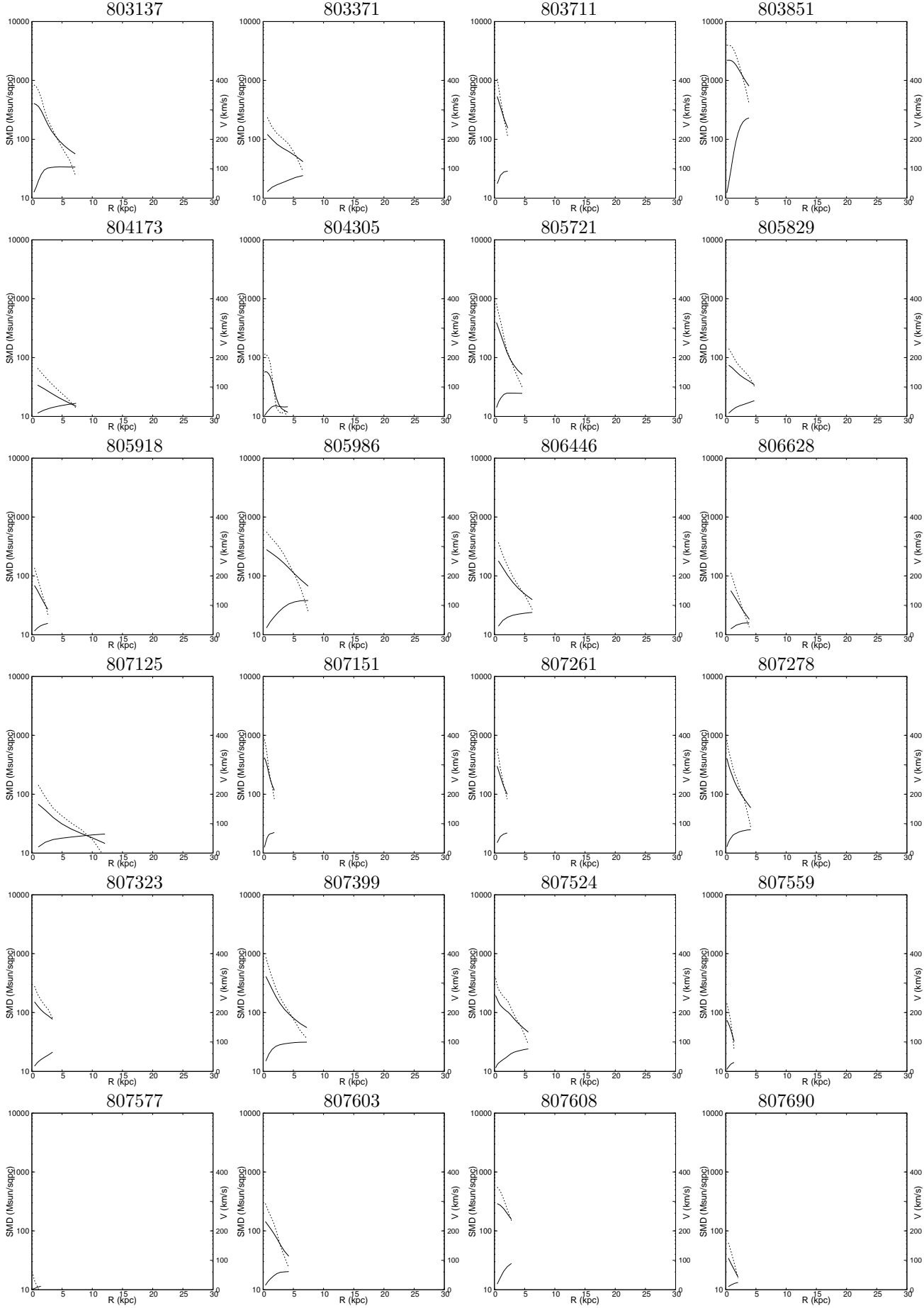


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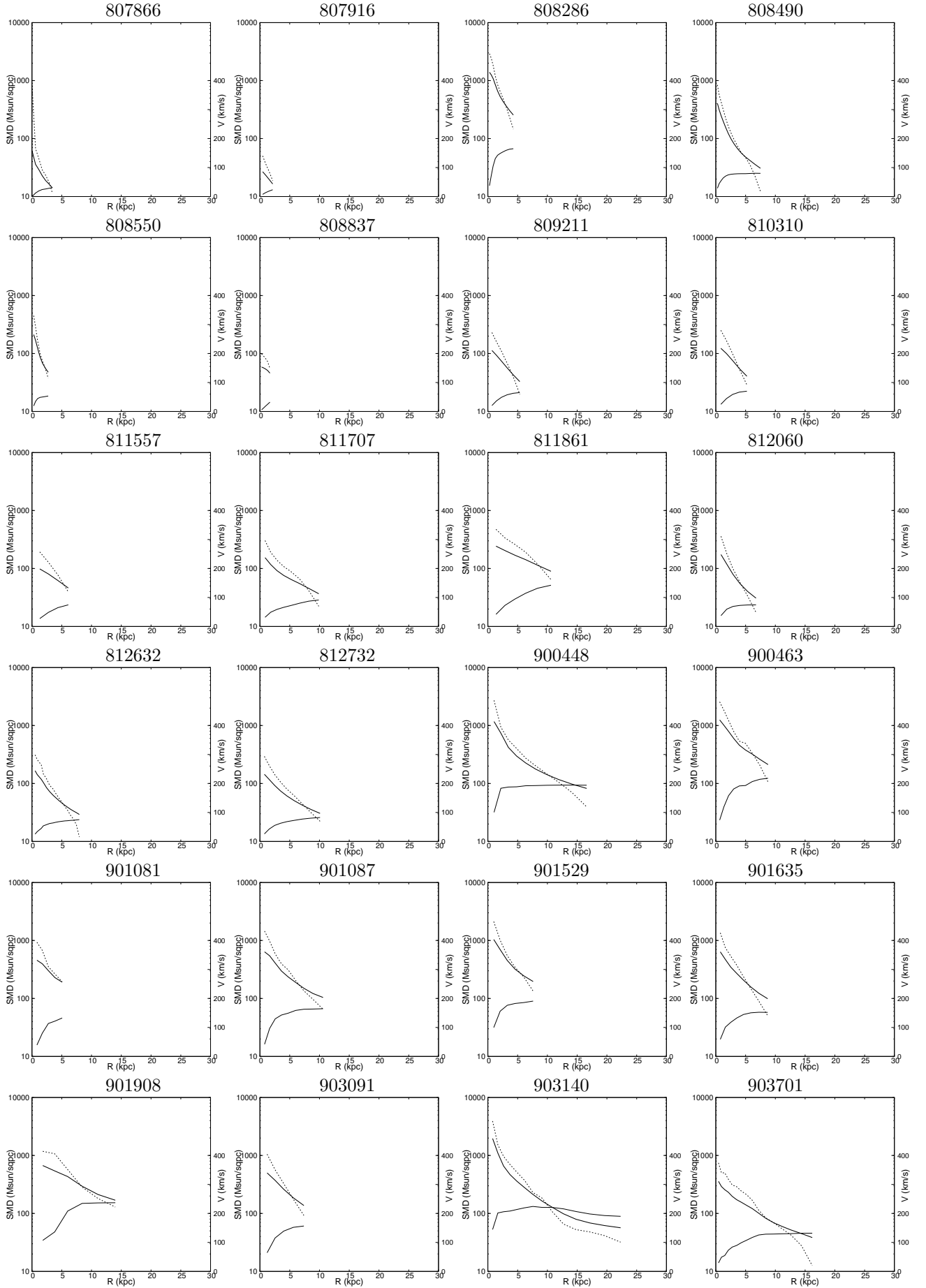


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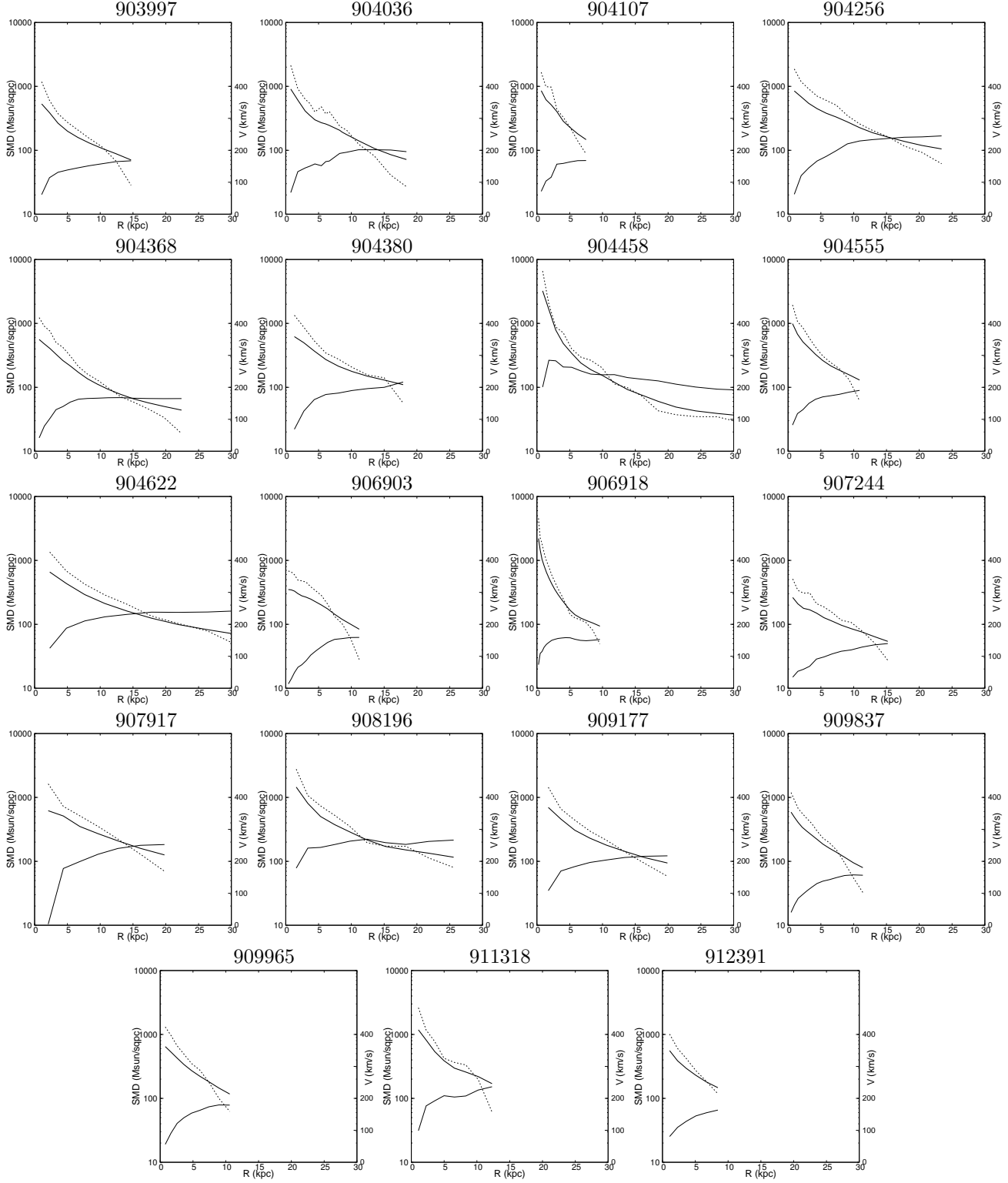


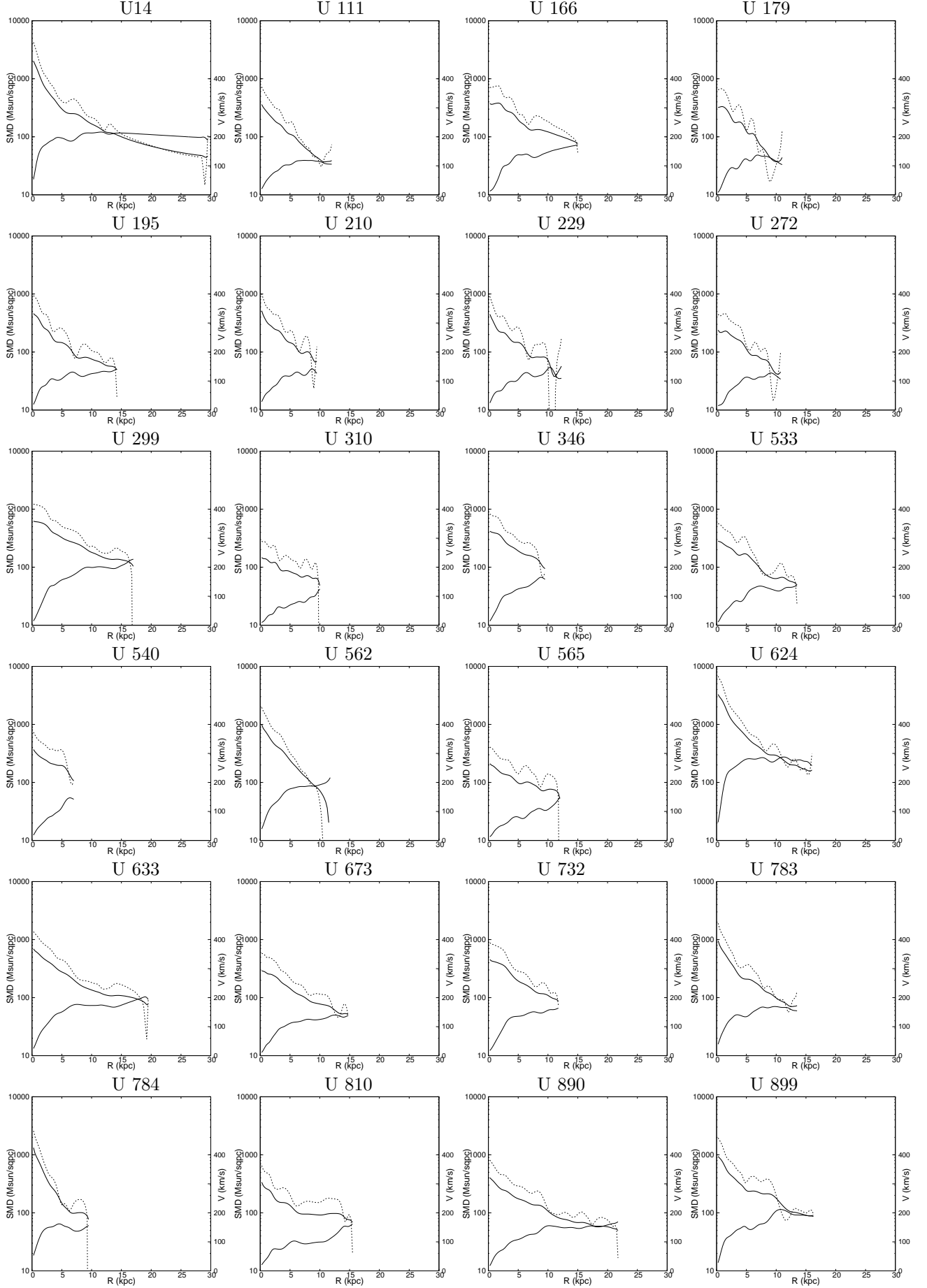
Fig. 2 (Cont.). SMD-F/S (thick/dashed lines), and RC (thin lines) of 289 C-sample galaxies (Courteau et al. 1996, 1997).

Fig. 2 (Cont.).

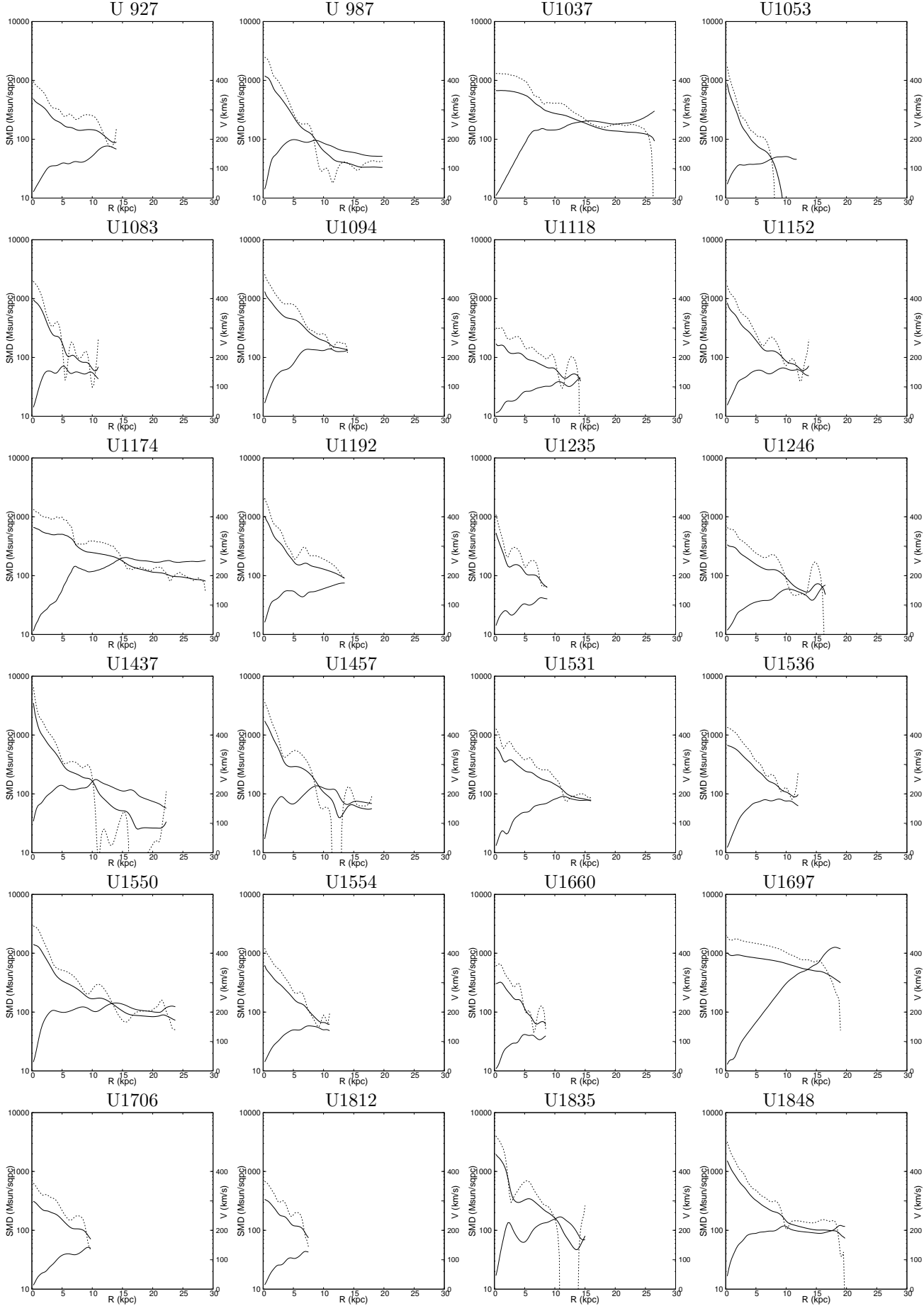


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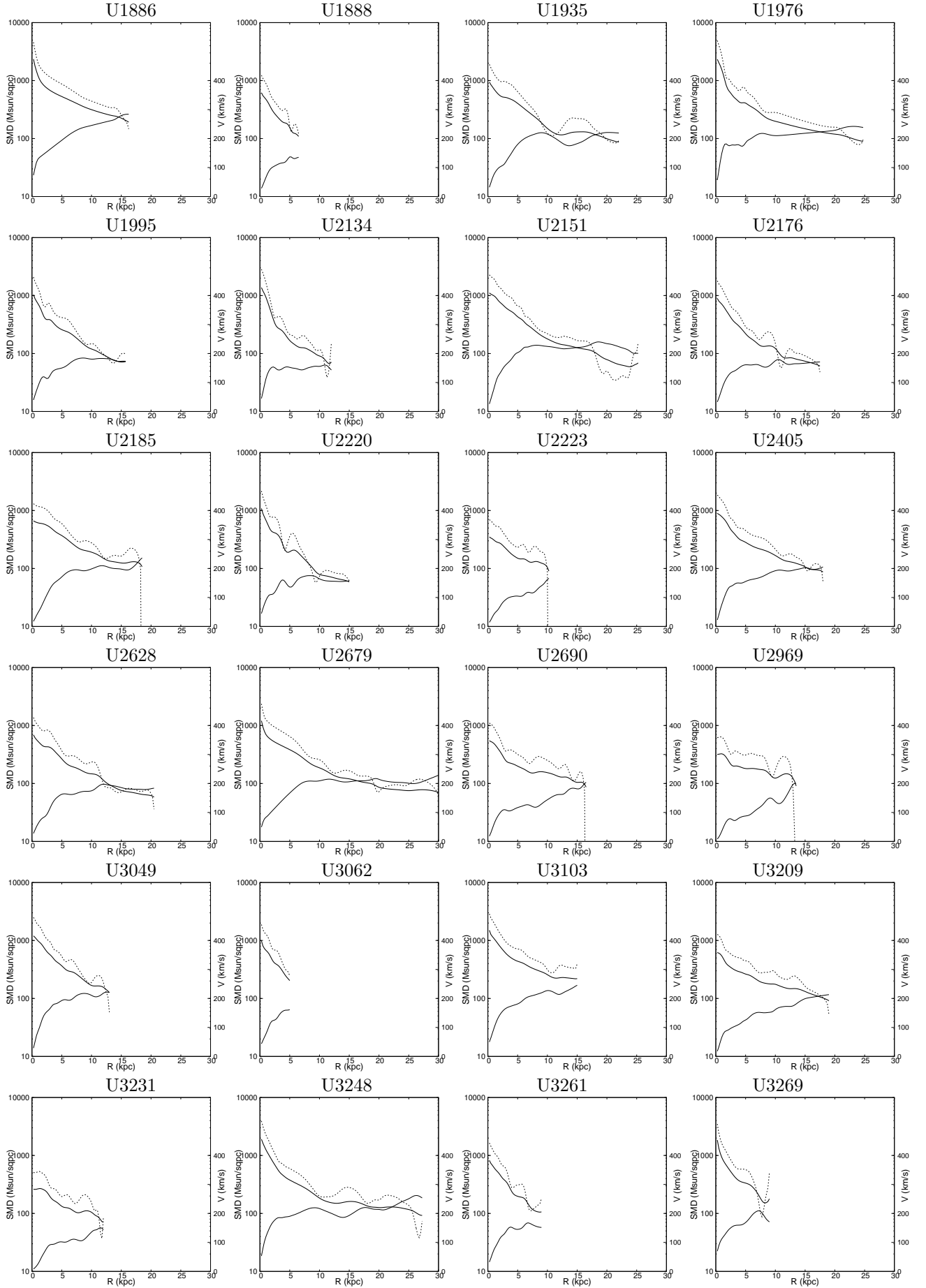


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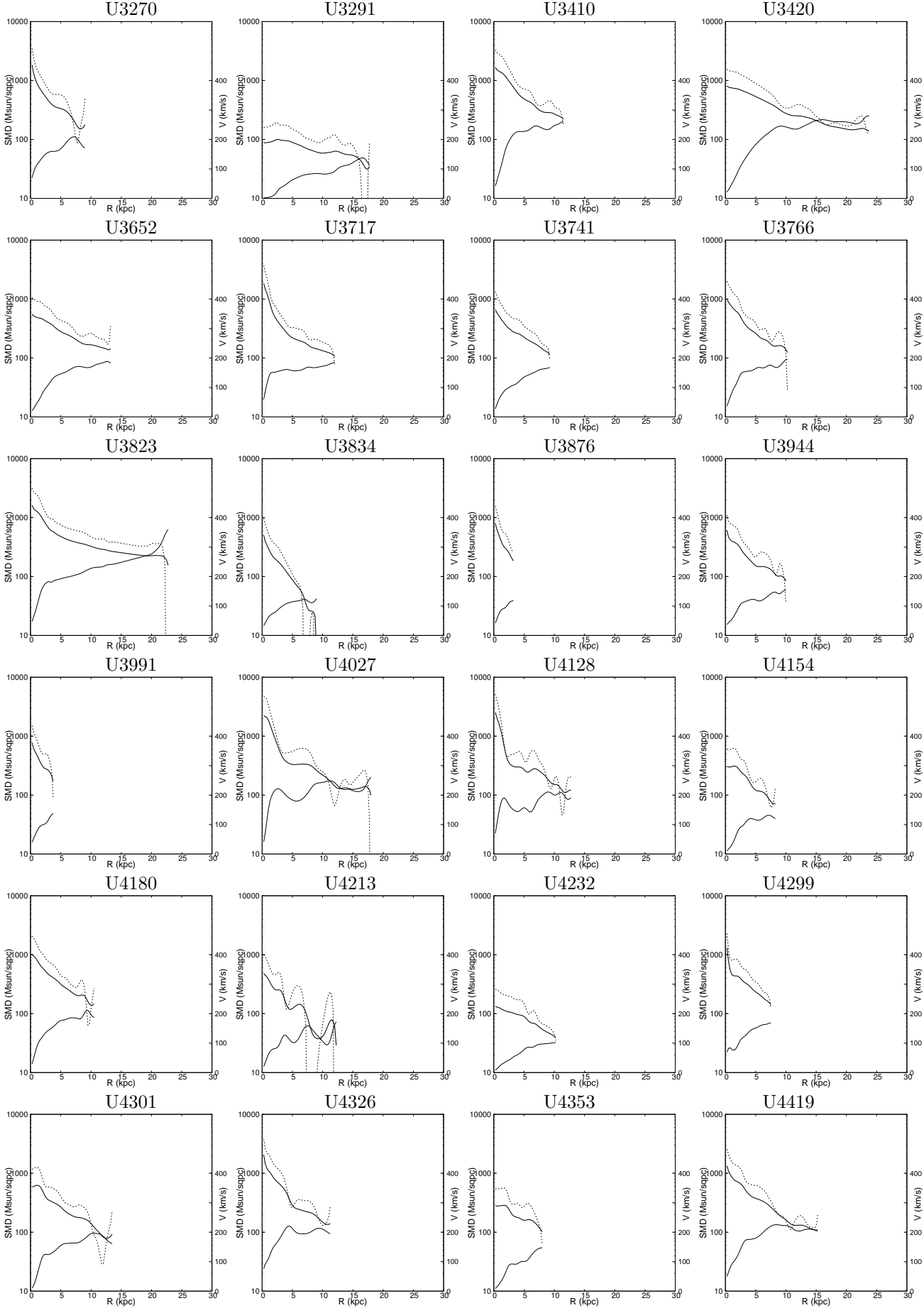


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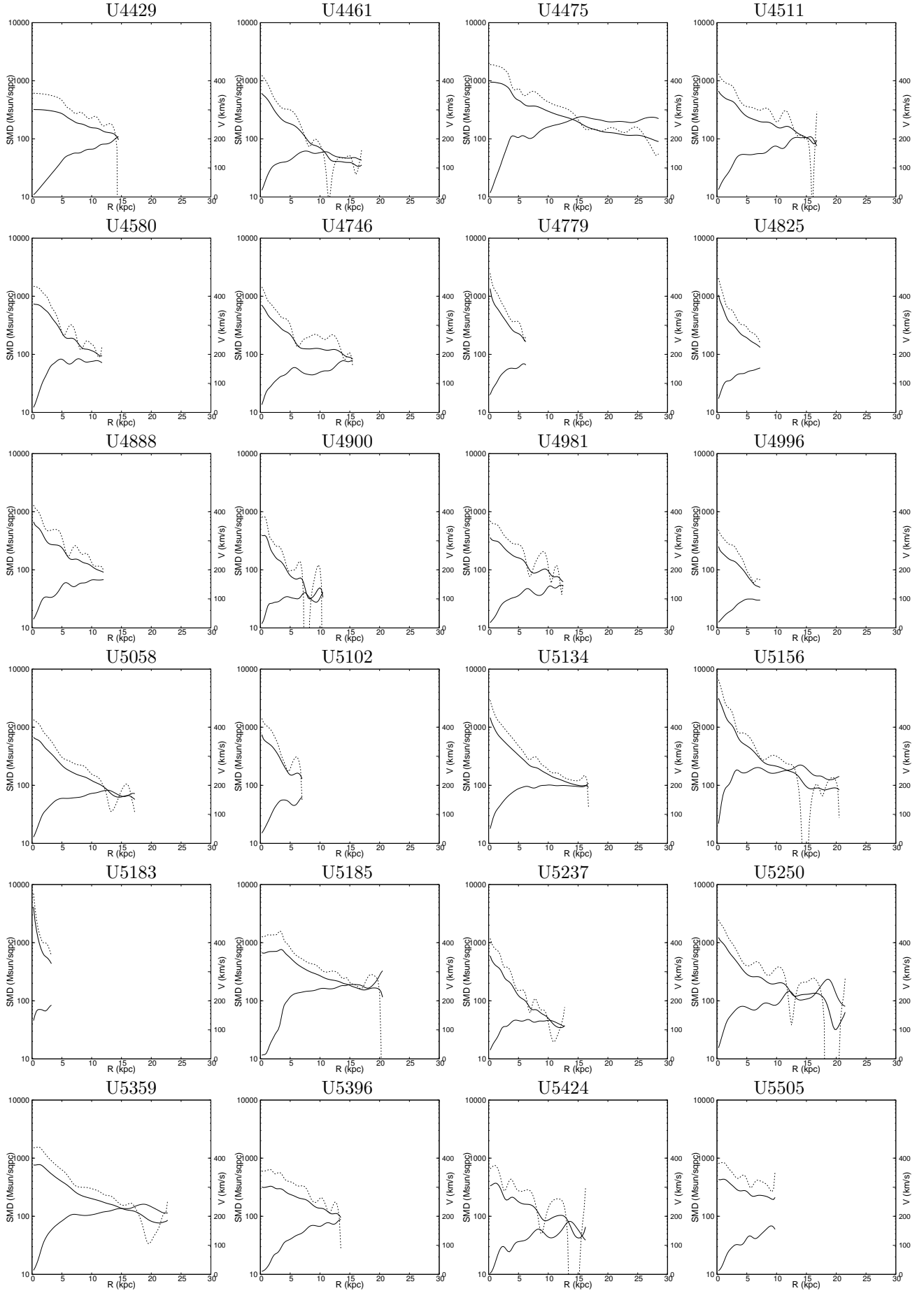


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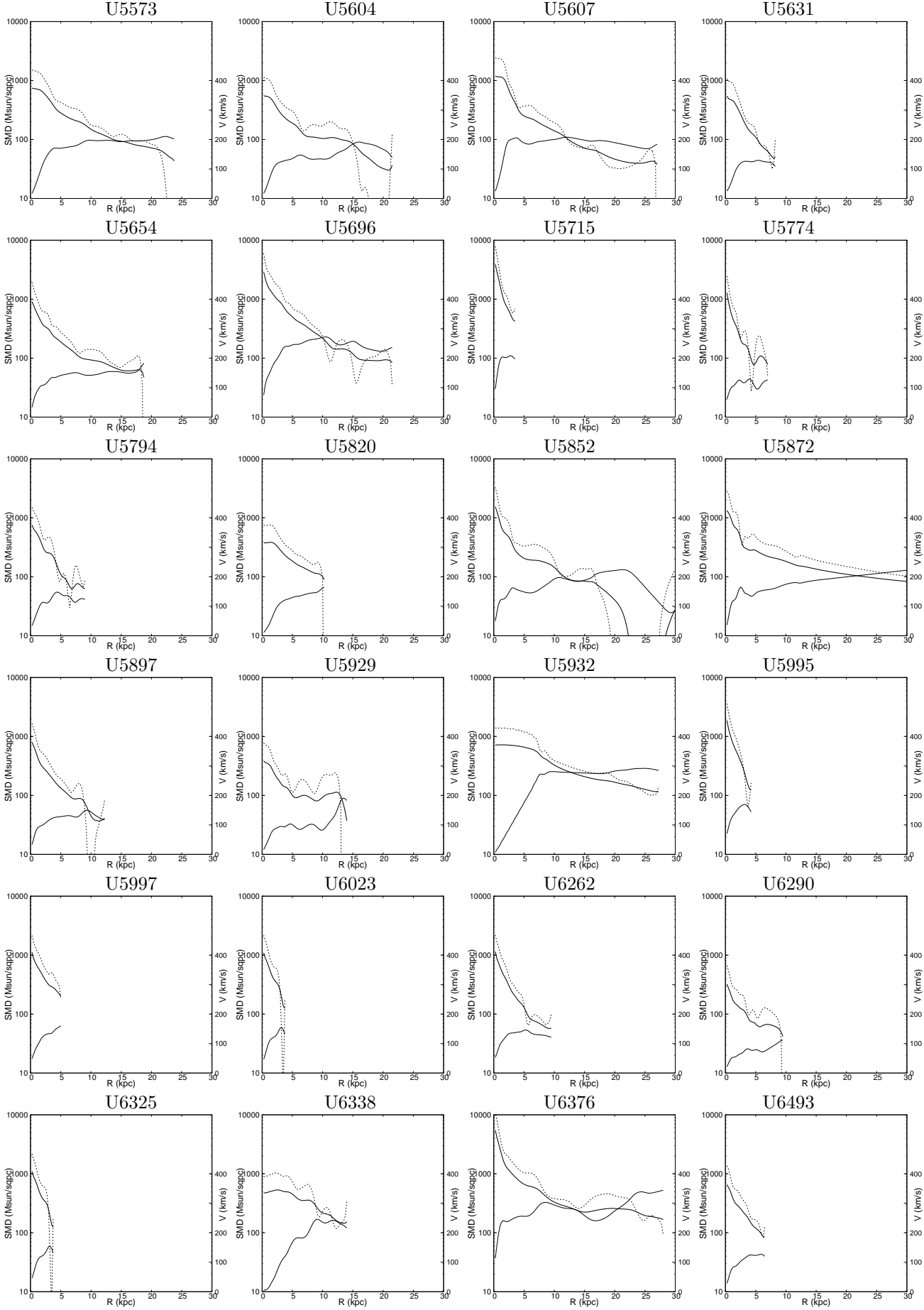


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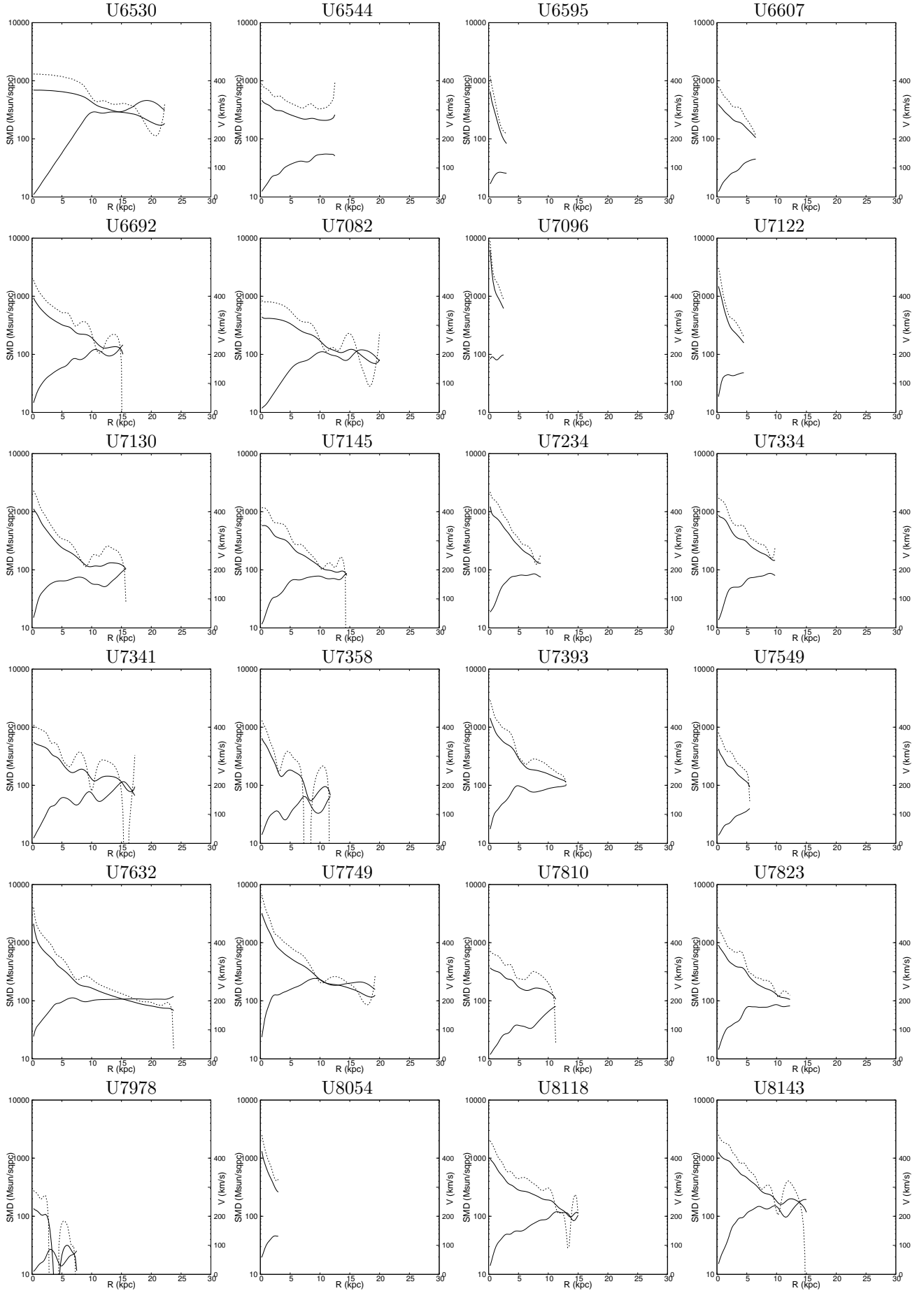


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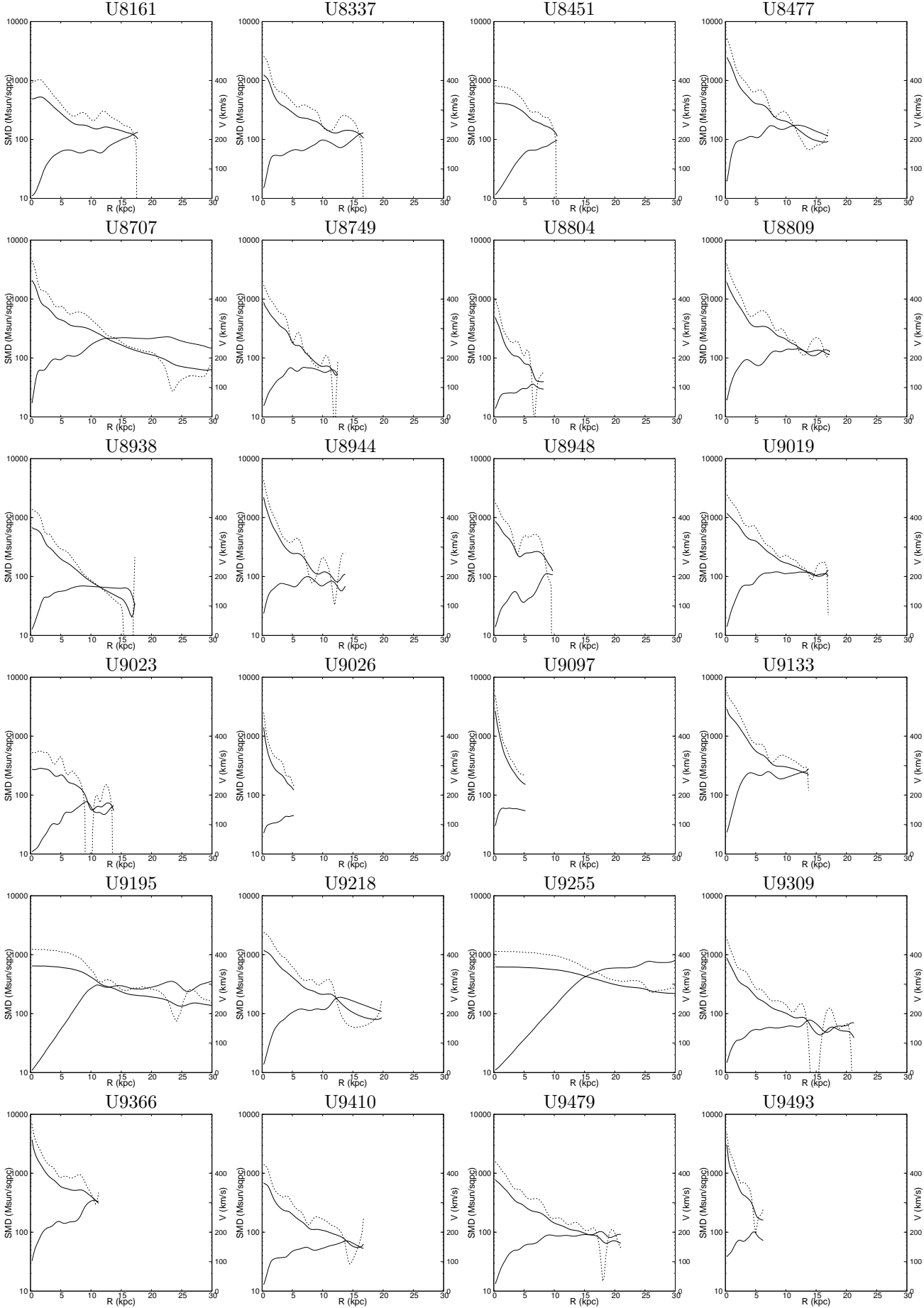


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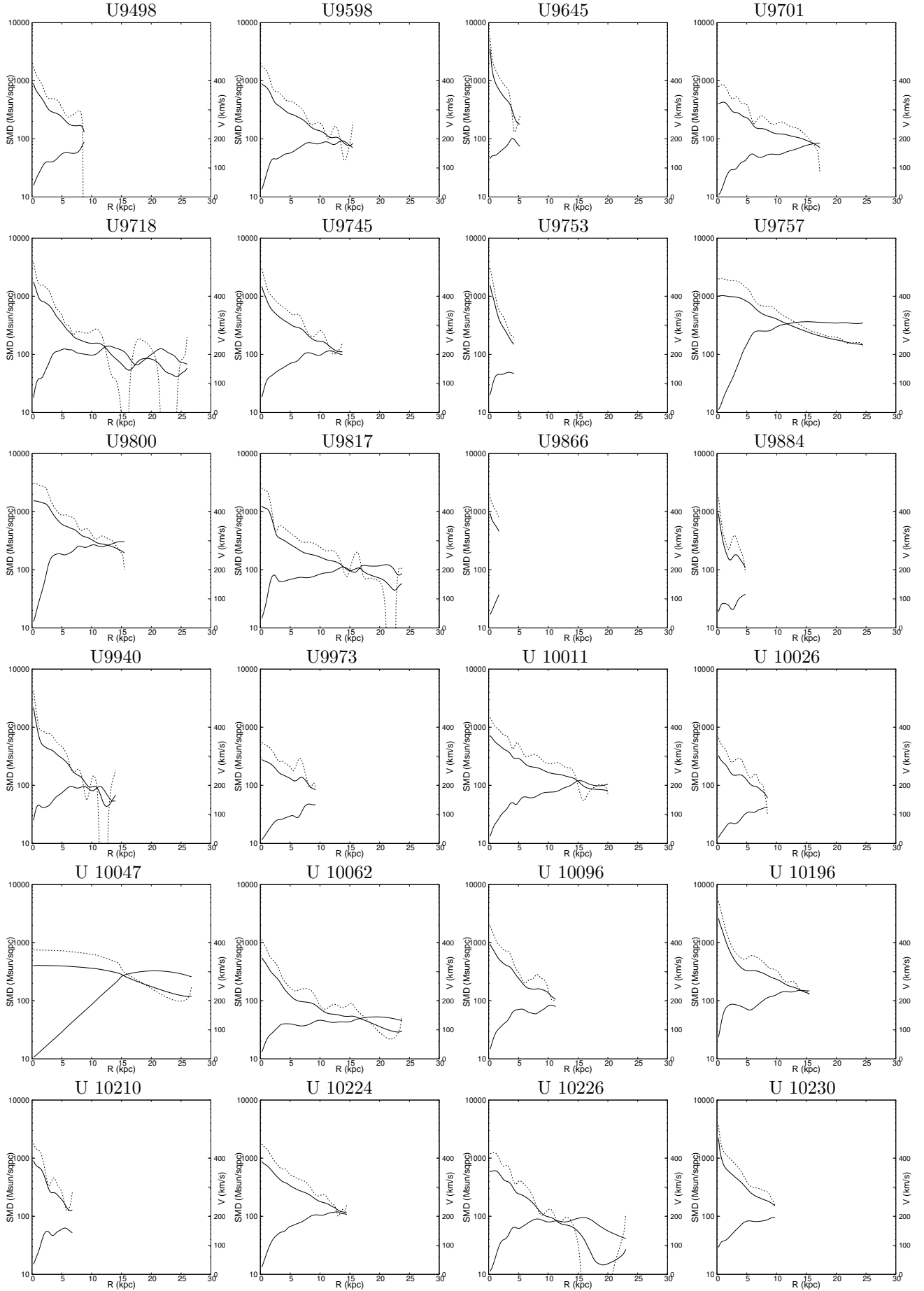


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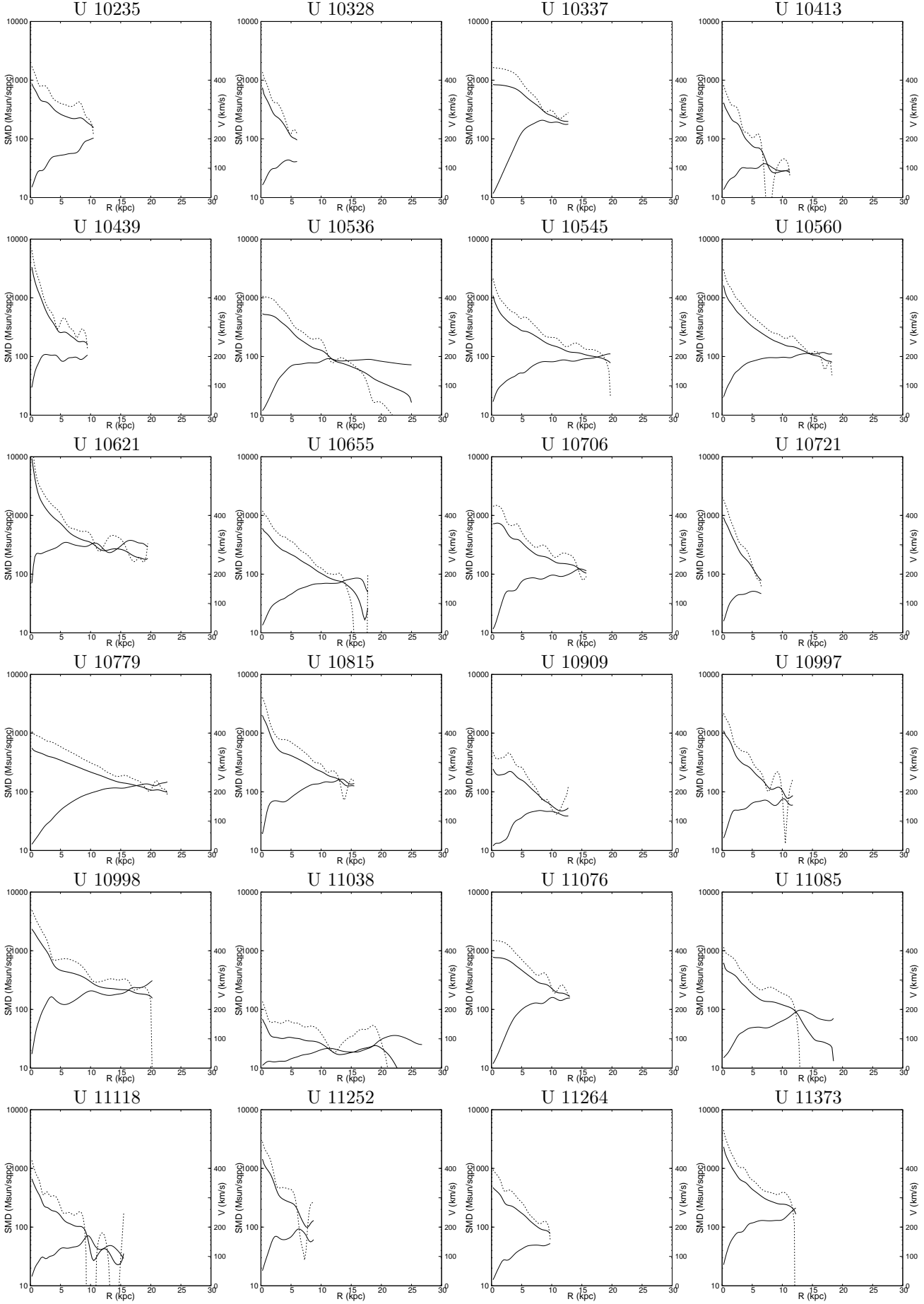


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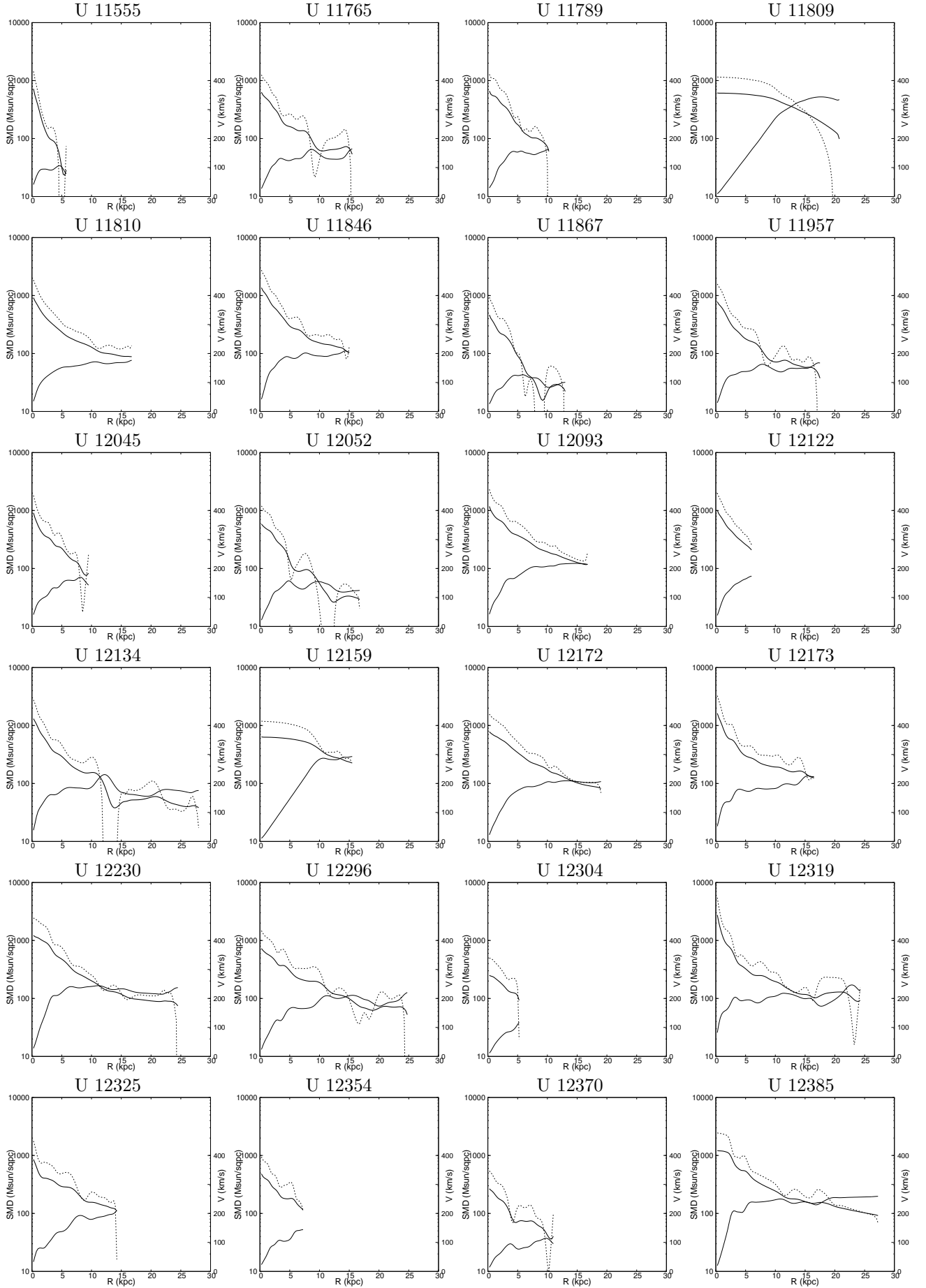


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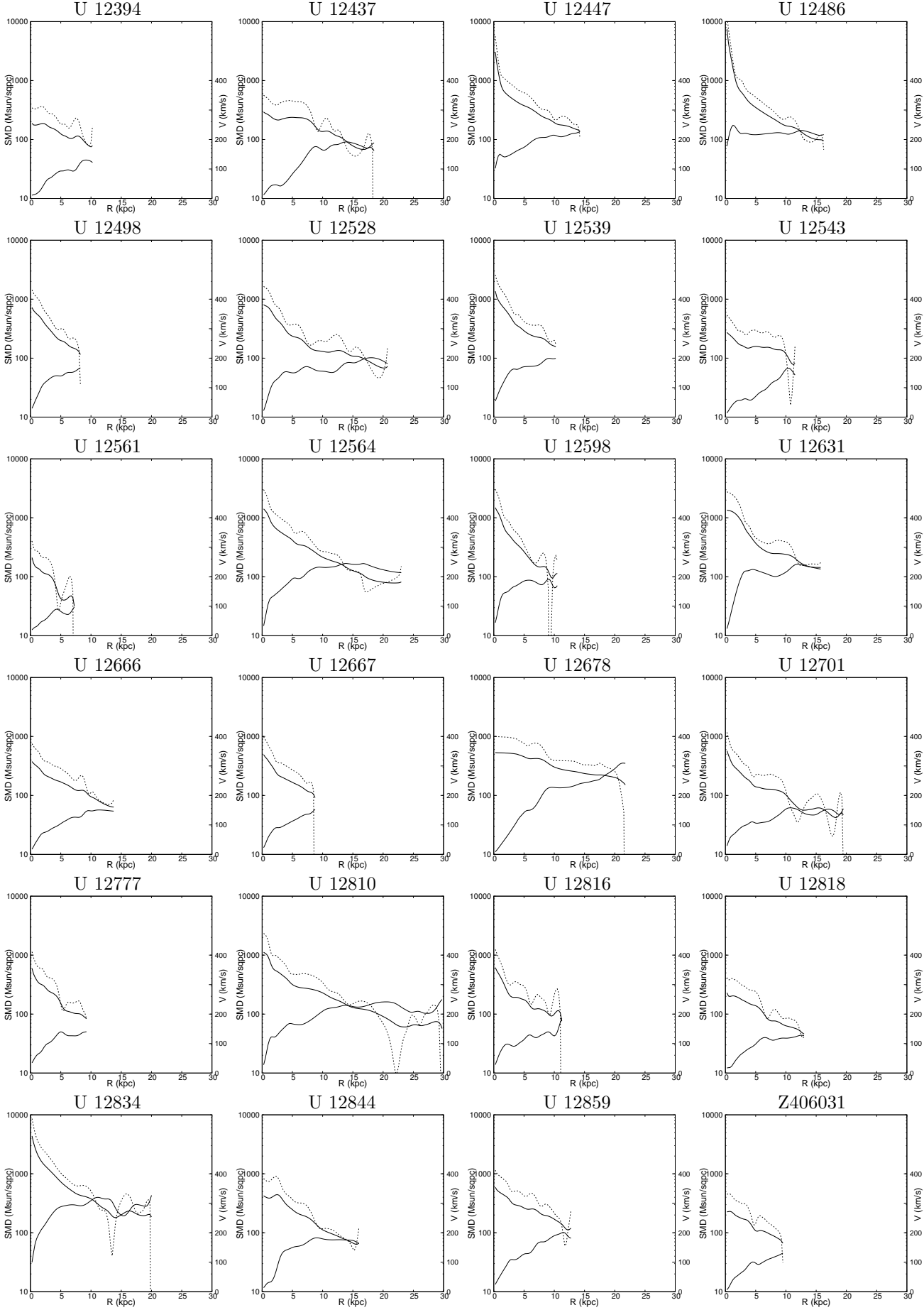


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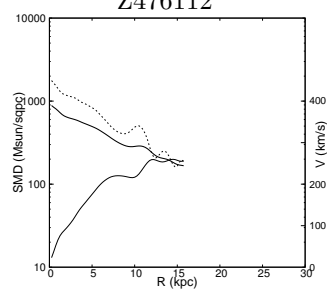


Fig. 3 (Cont.). ML-F/S (increasing thick/dashed lines), w-bnd μ corrected for inclination and extinction (decreasing thick lines), and SMD-F/S (decreasing thin/dash) for 31 P-sample galaxies (Pilyugin et al. 2014).

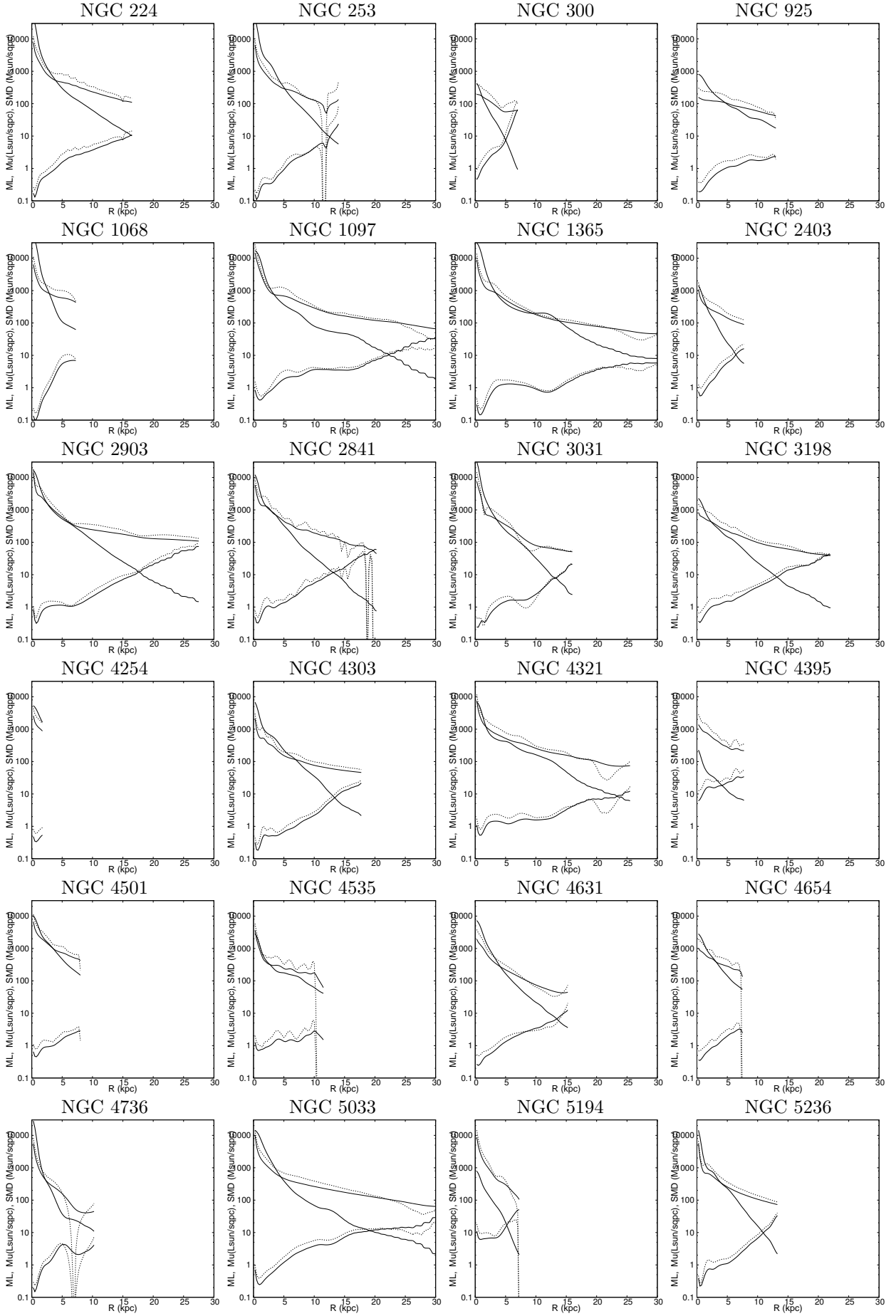


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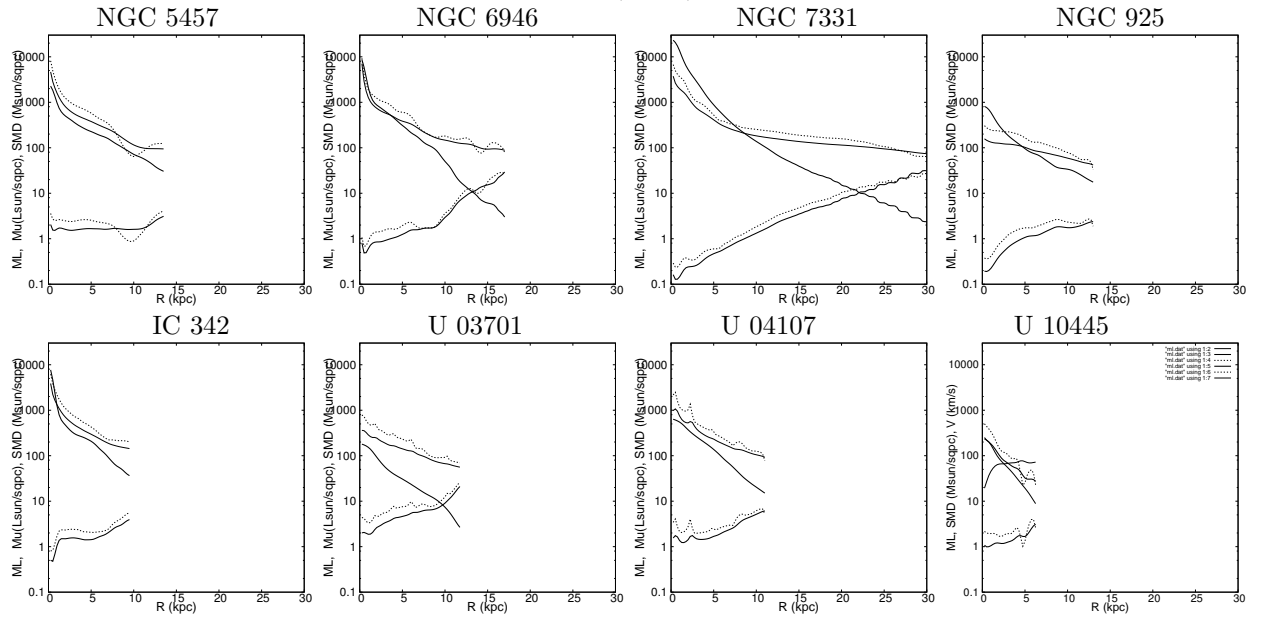
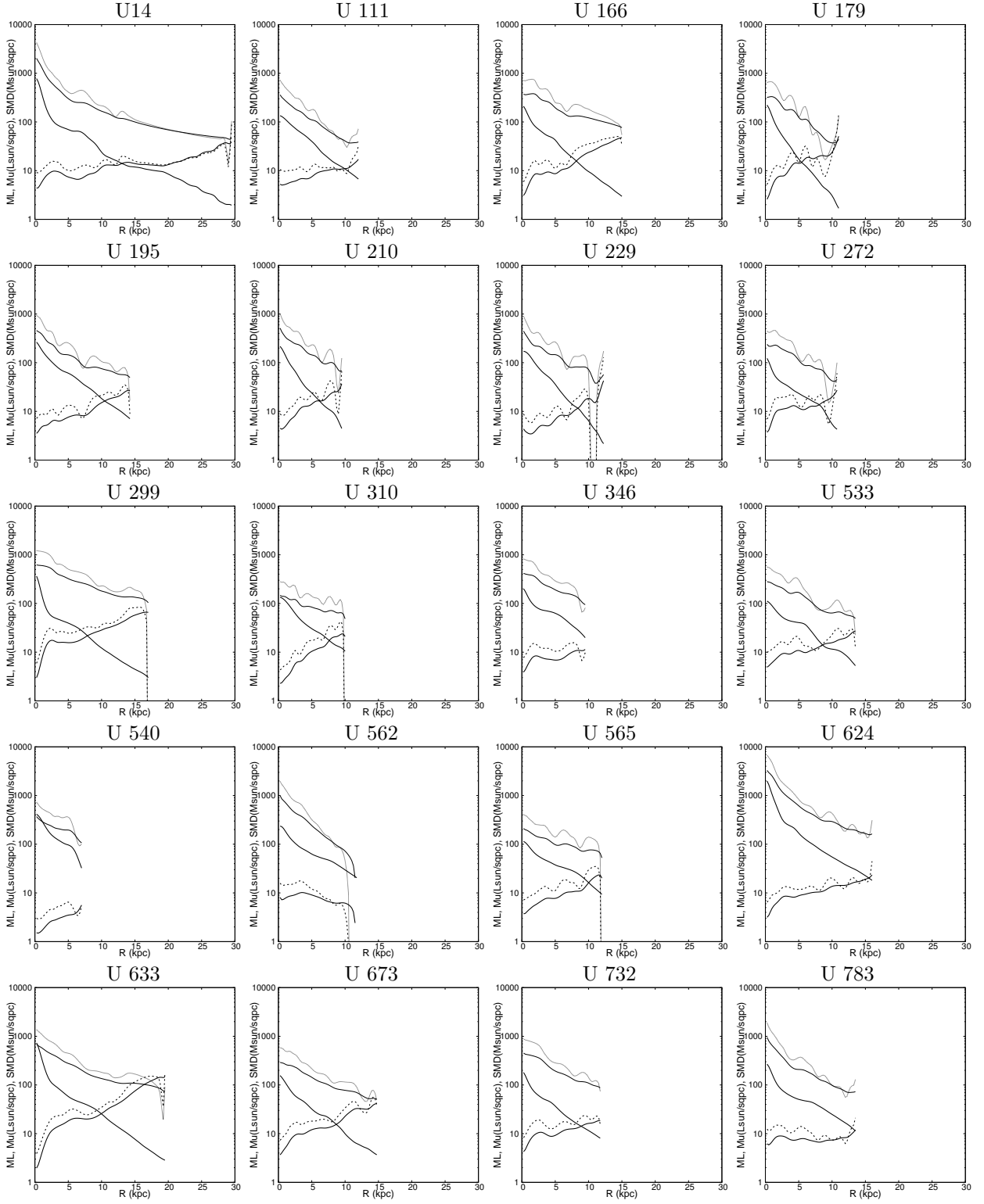


Fig. 4 (Cont.). ML-F/S (increasing thick/dashed lines), r-band μ corrected for inclination and extinction (decreasing thick lines), and SMD-F/S (decreasing thin/dash) for 289 C-sample galaxies (Courteau's 1996, 1997).



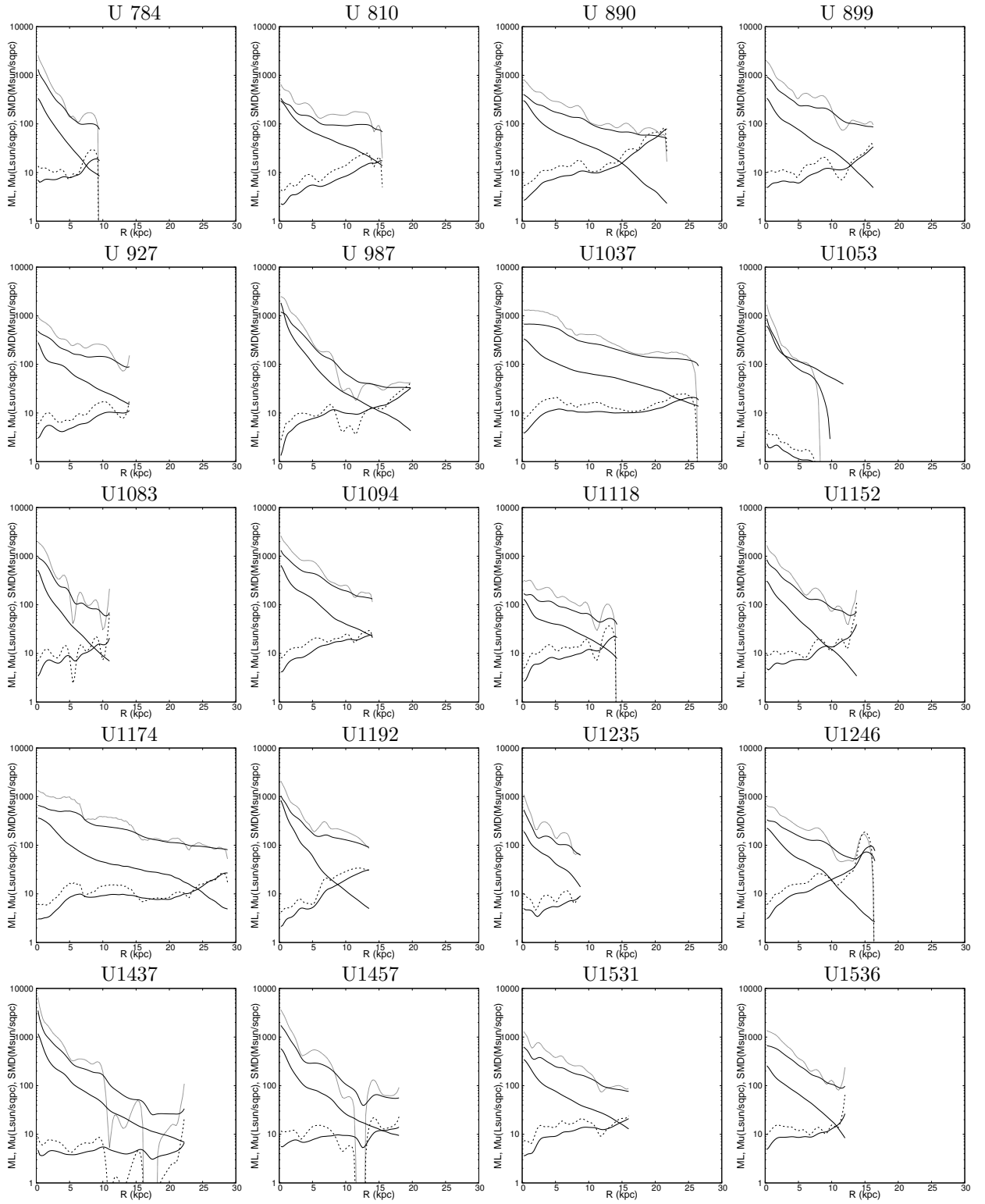


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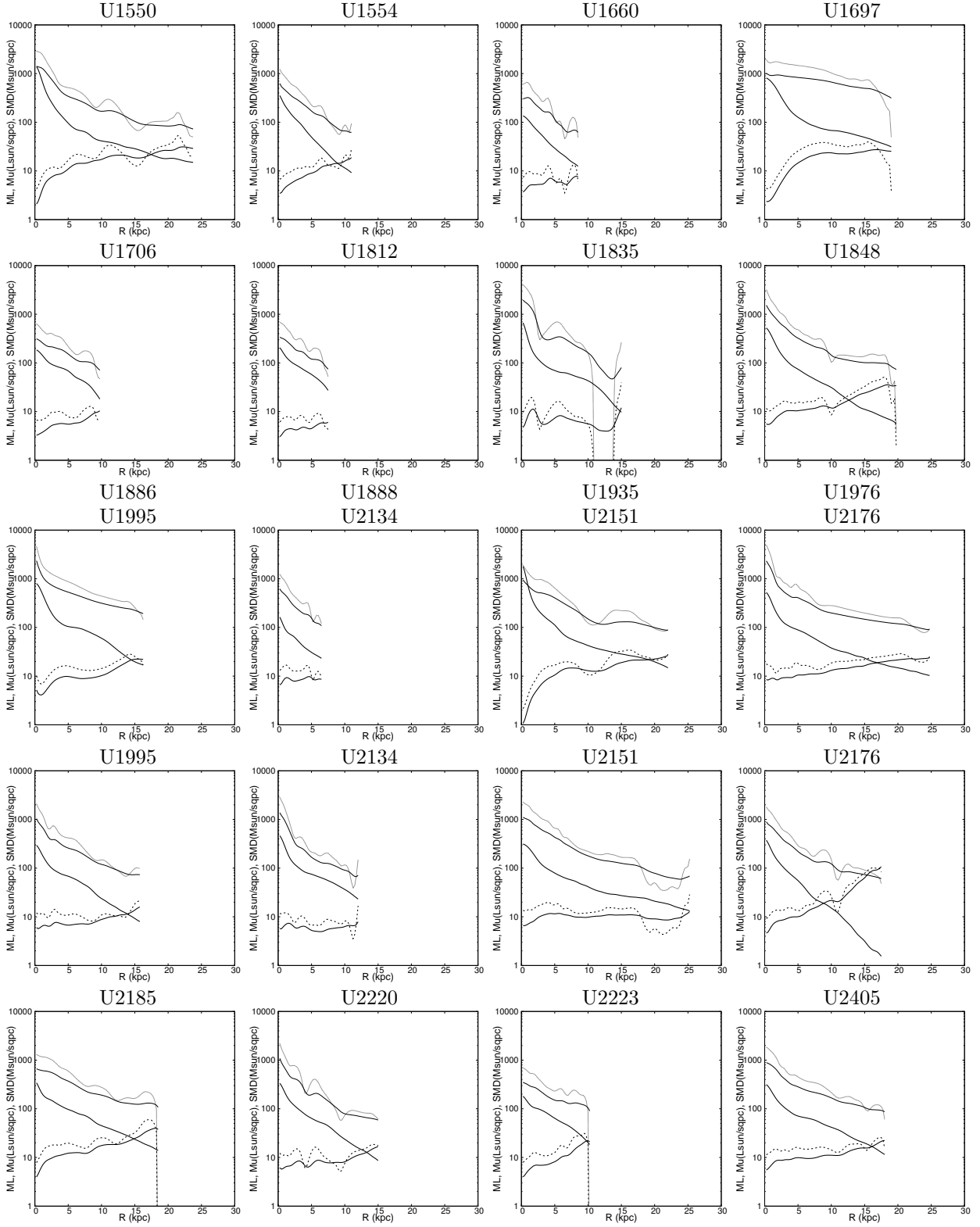


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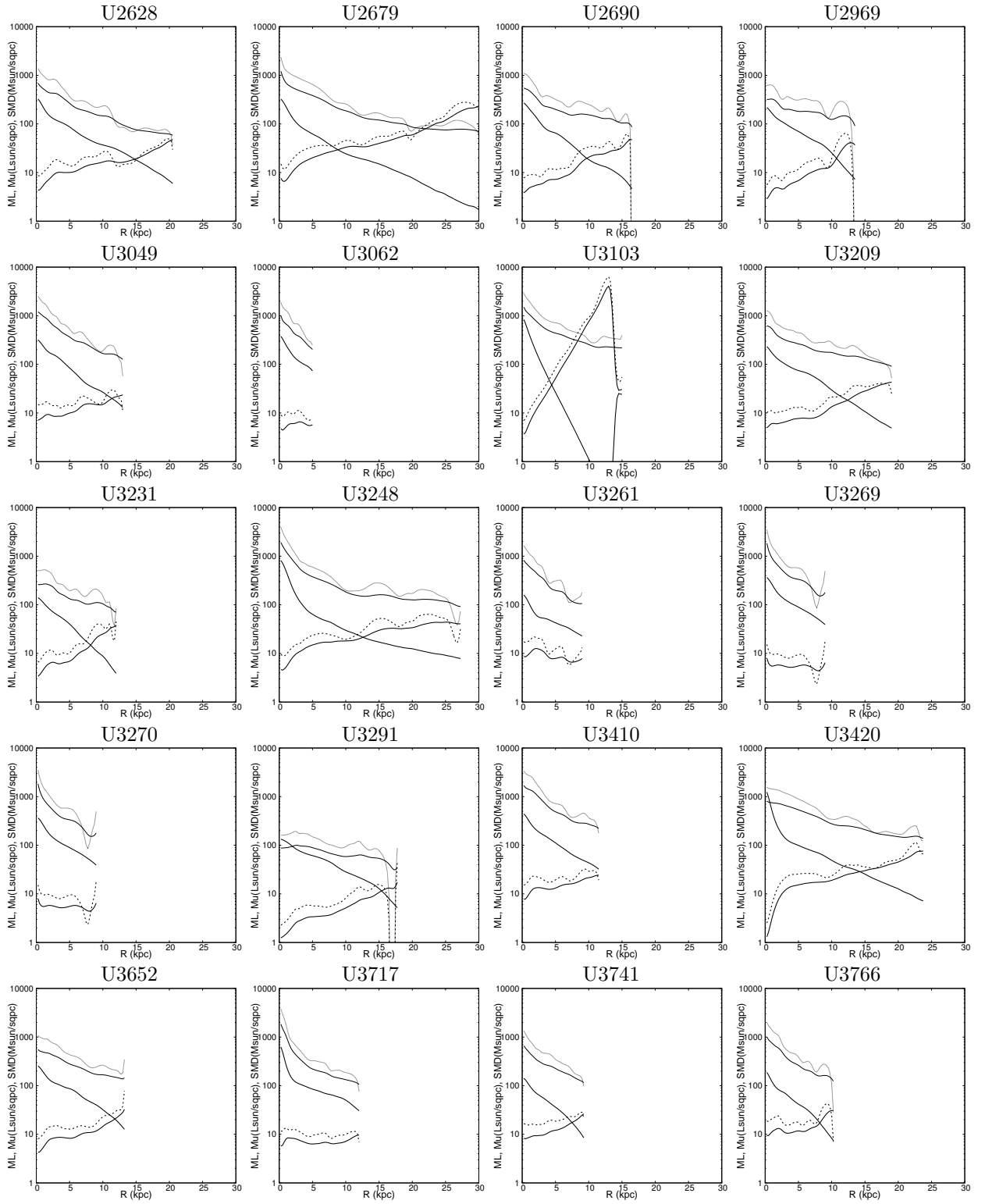


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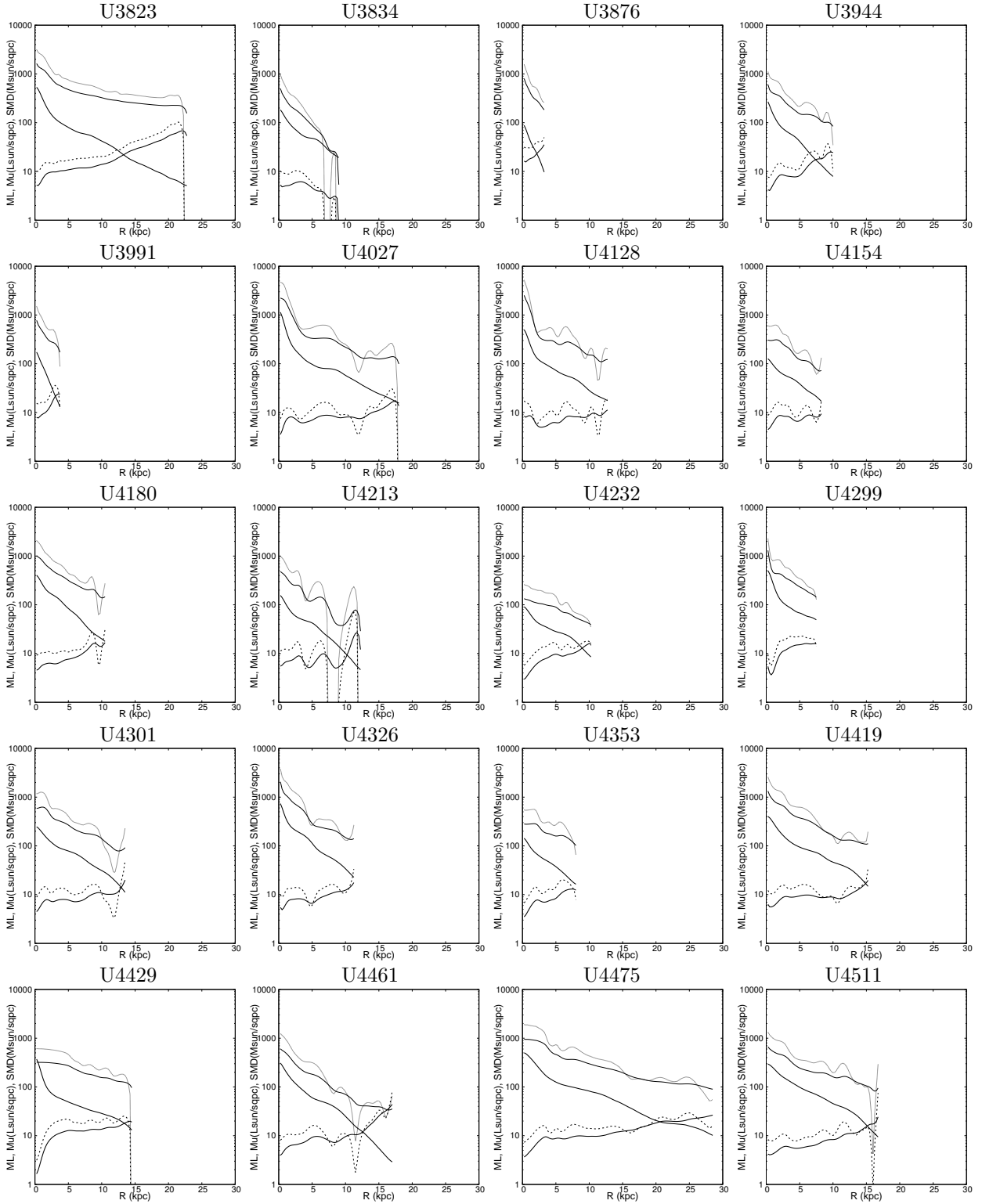


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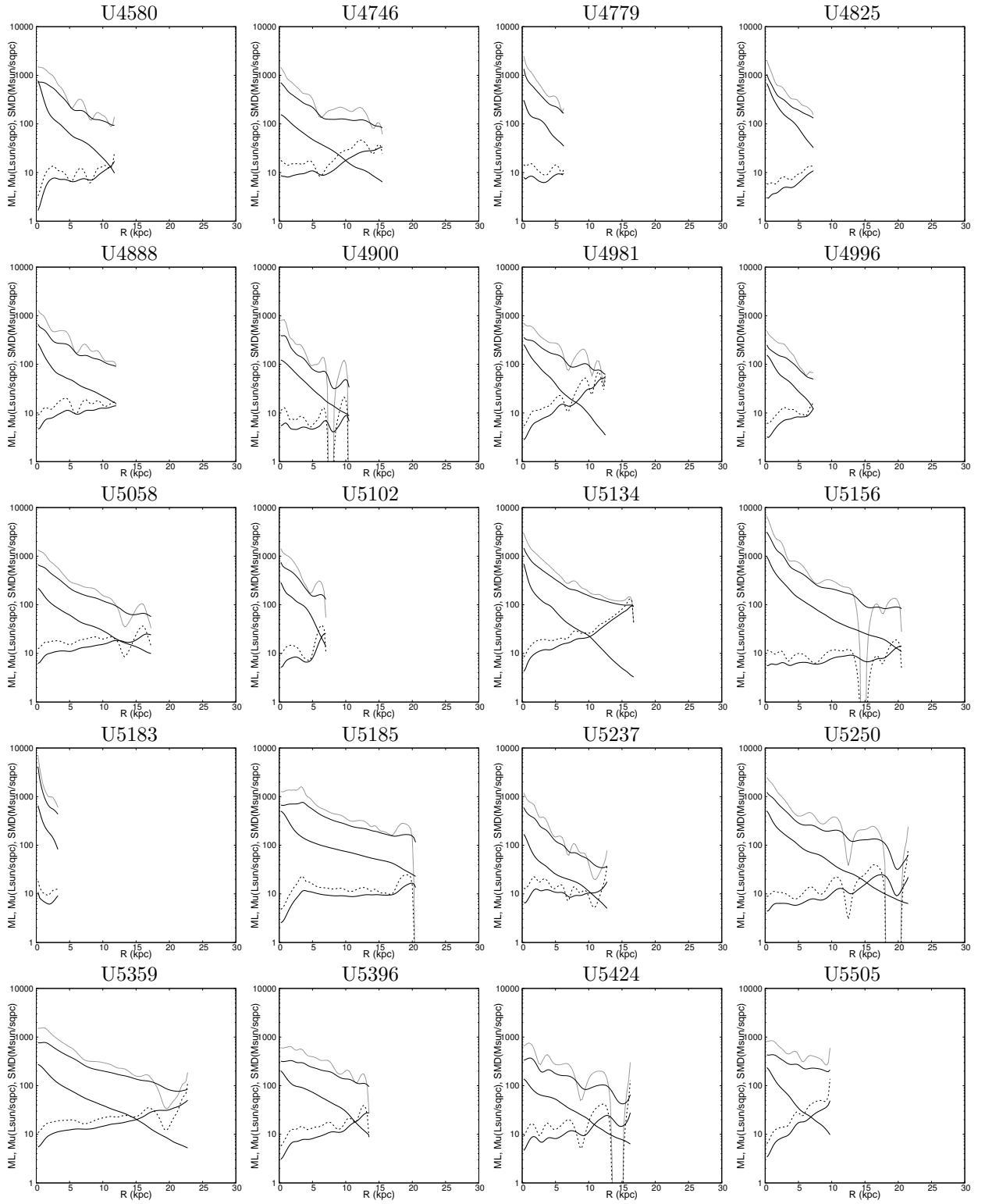


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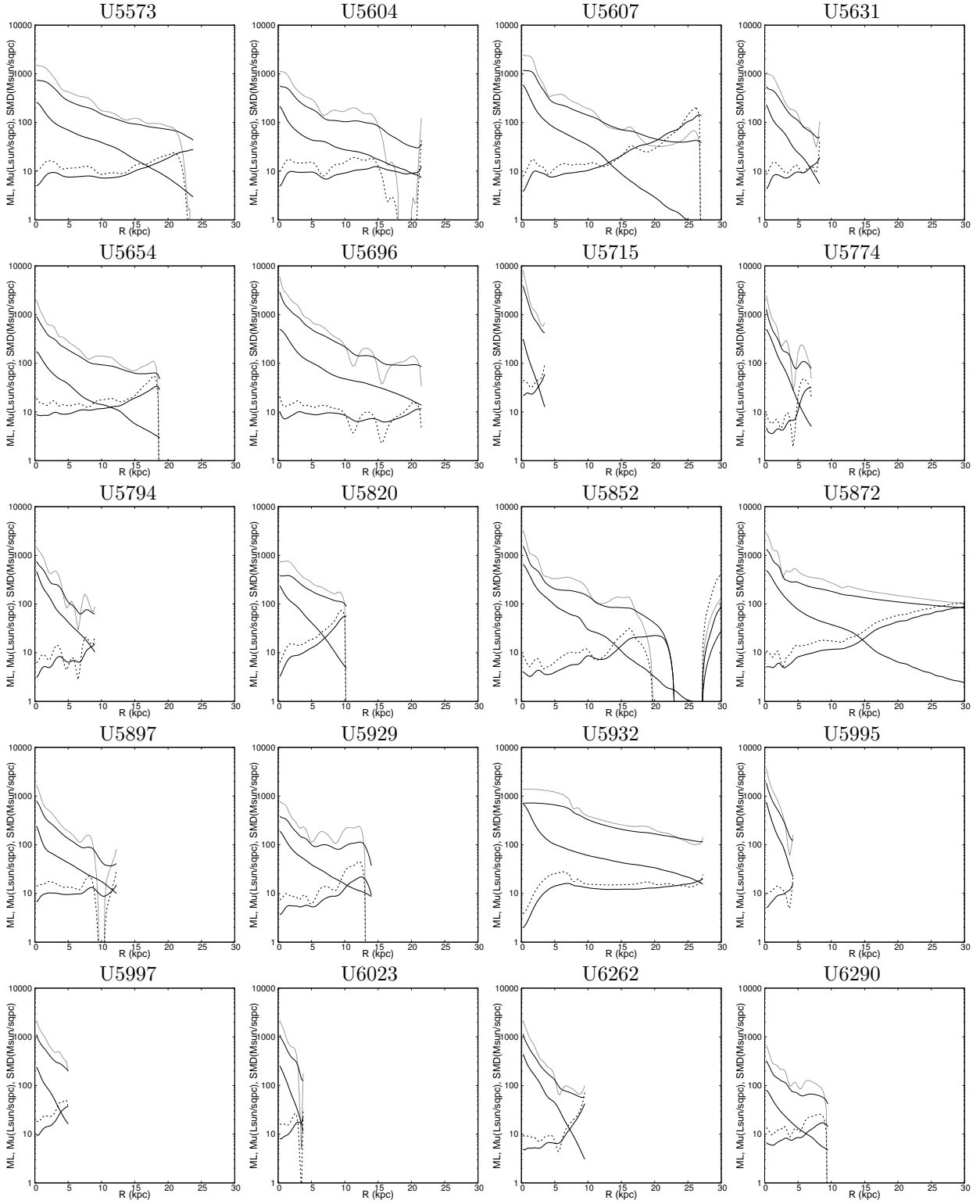


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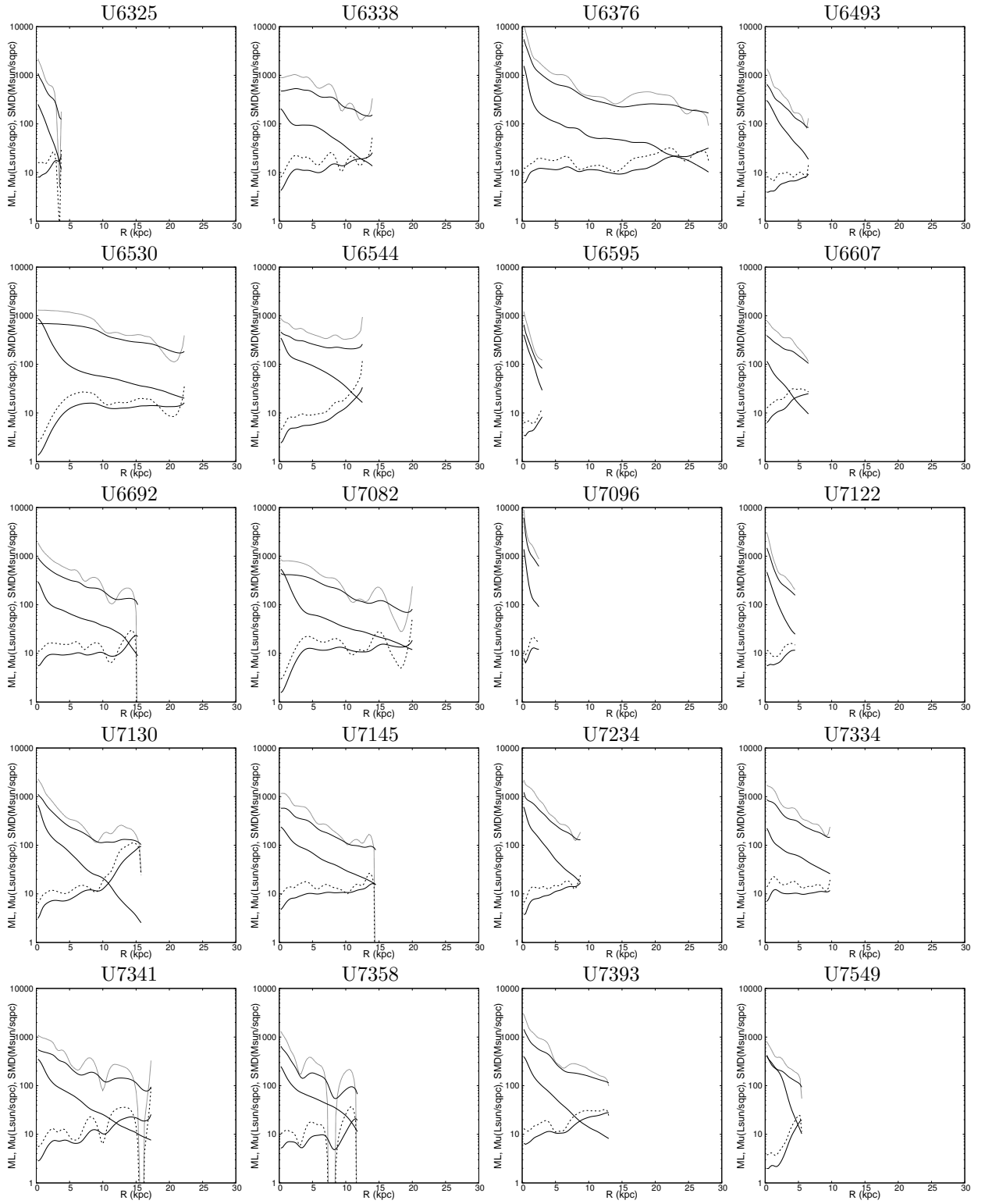


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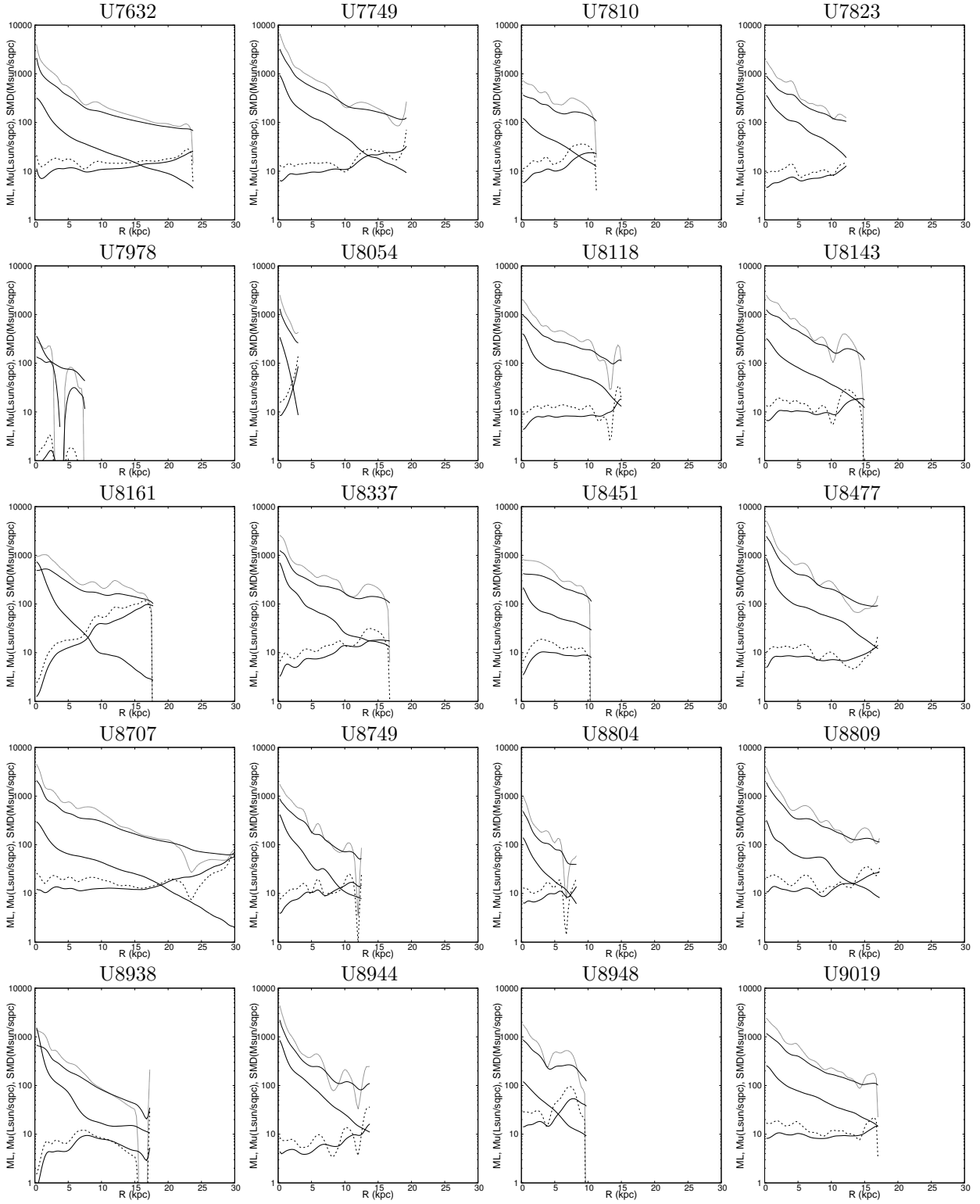


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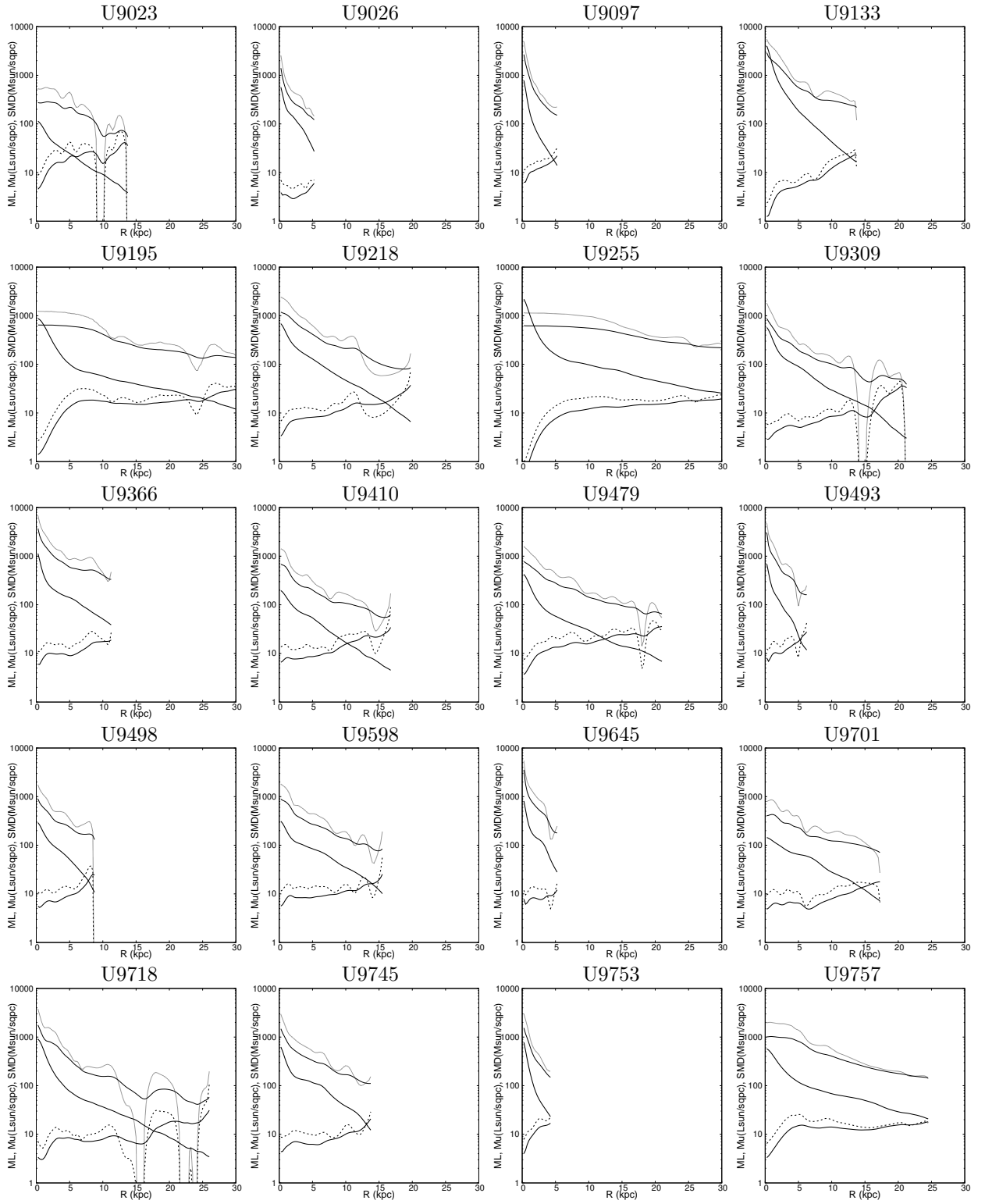


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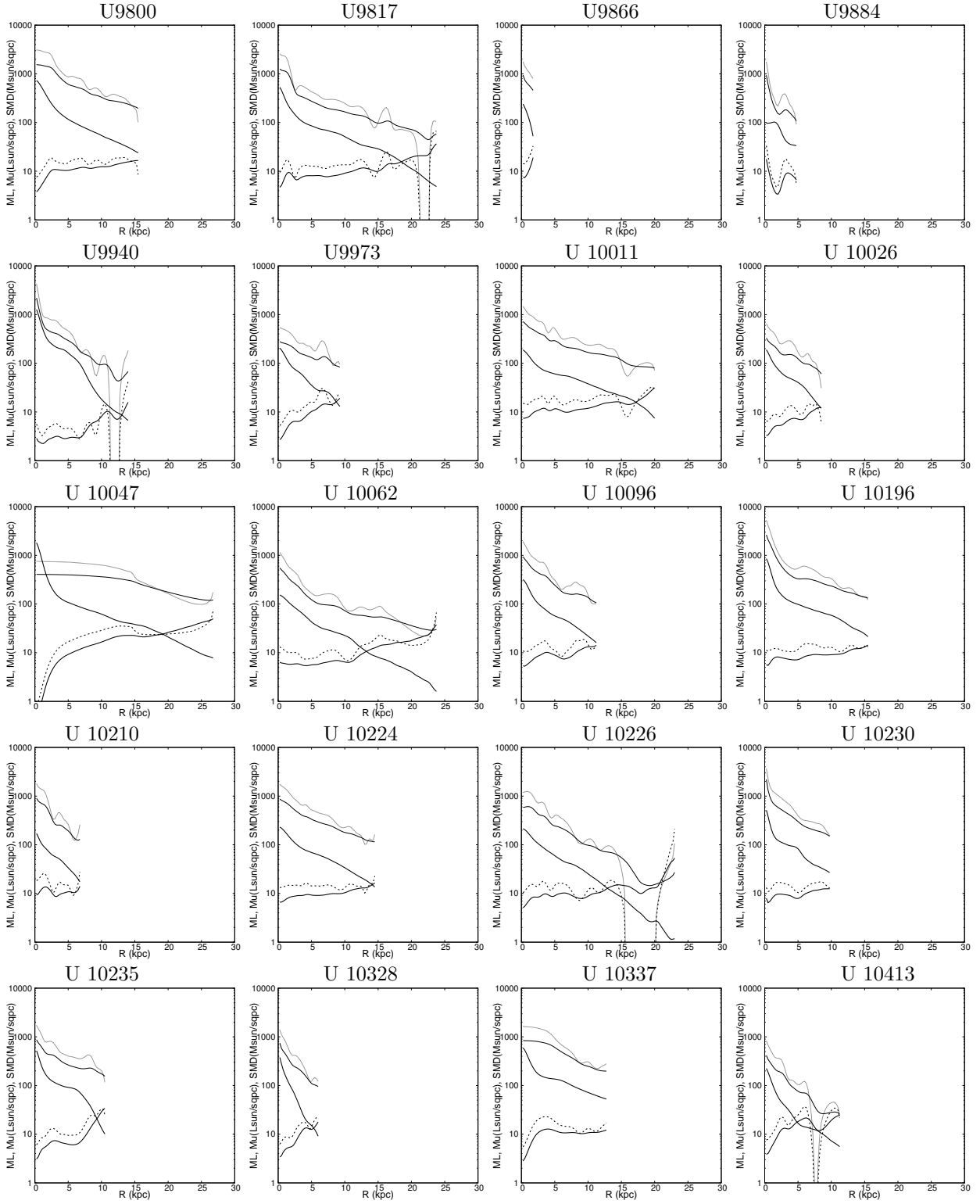


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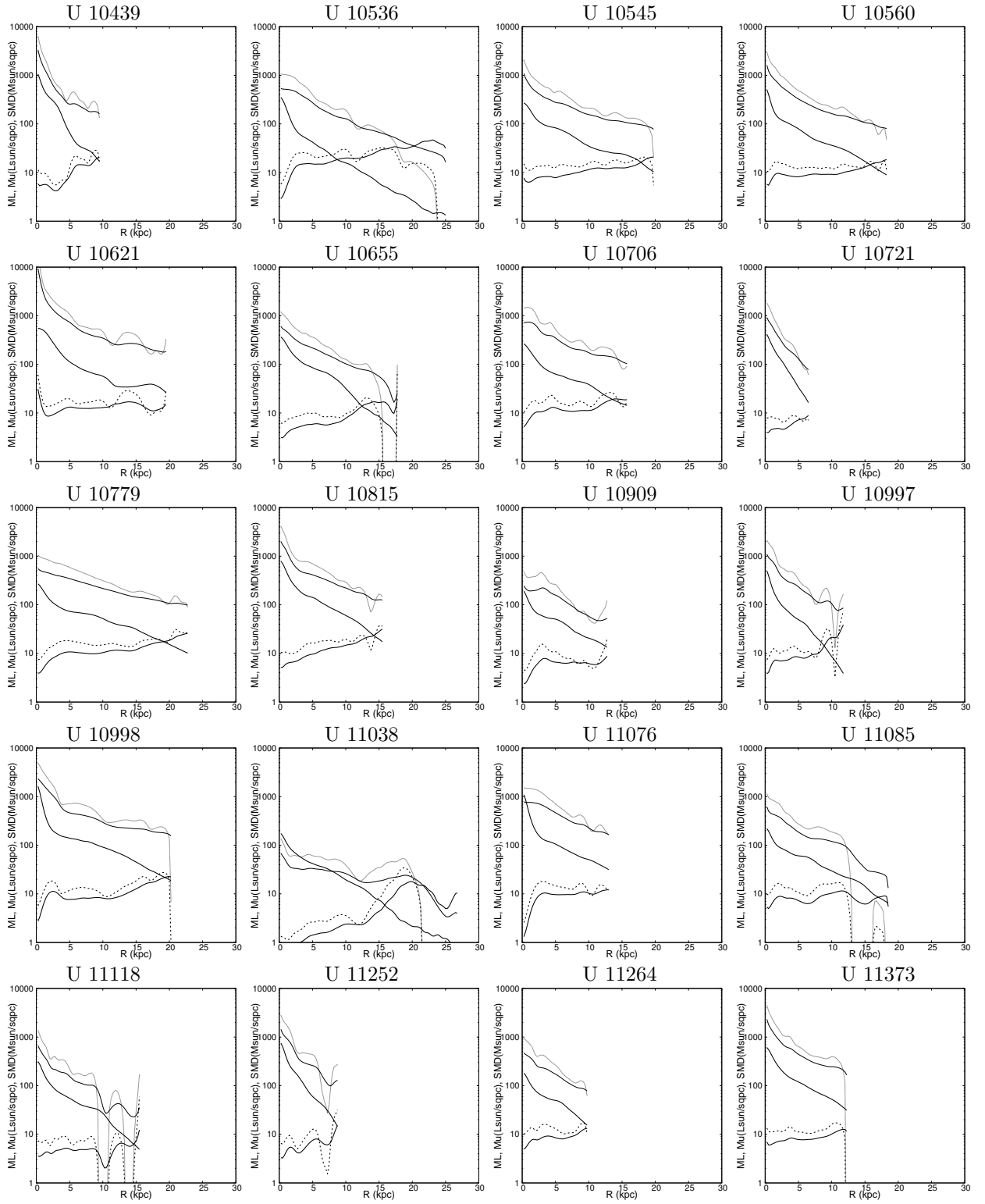


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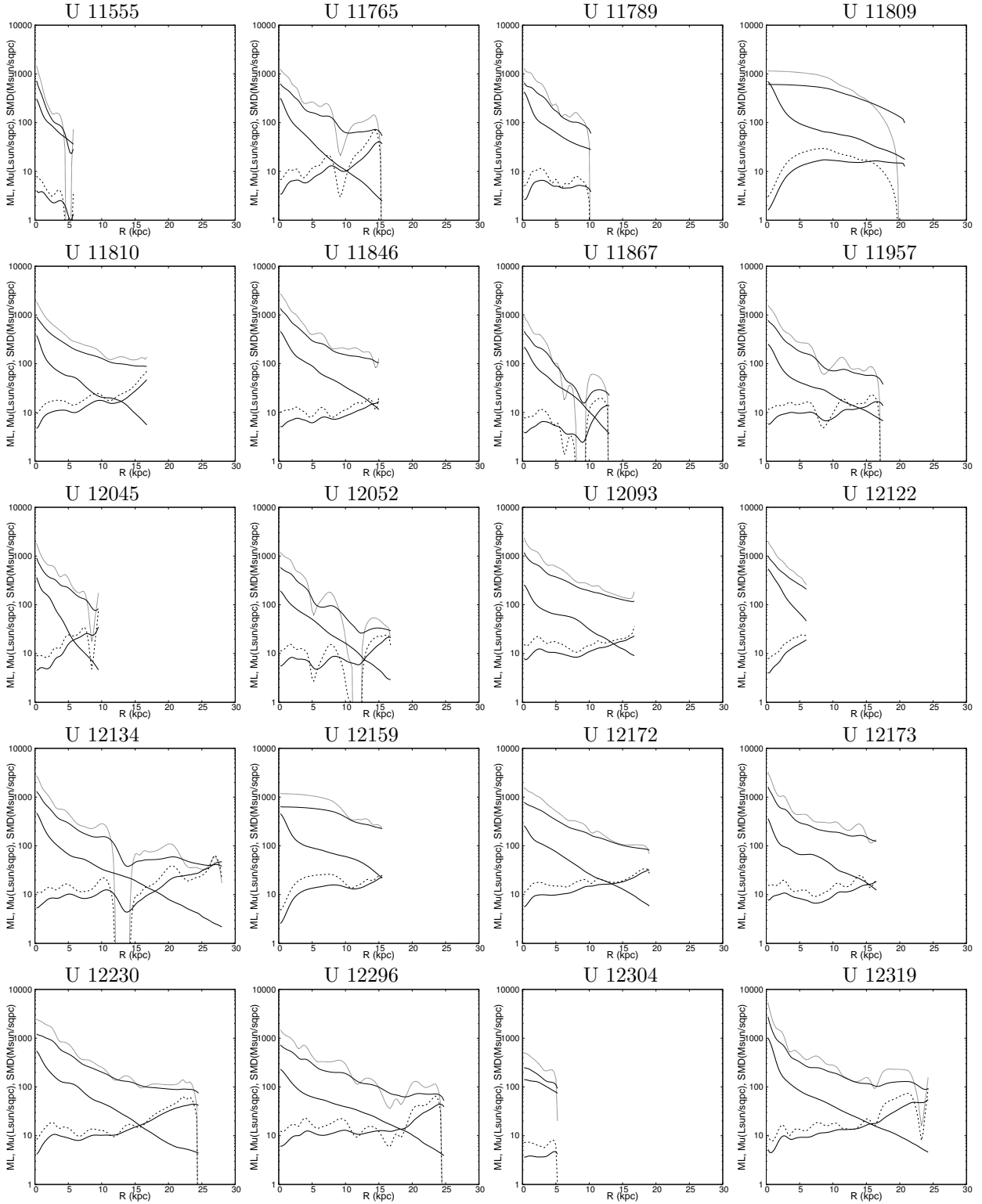


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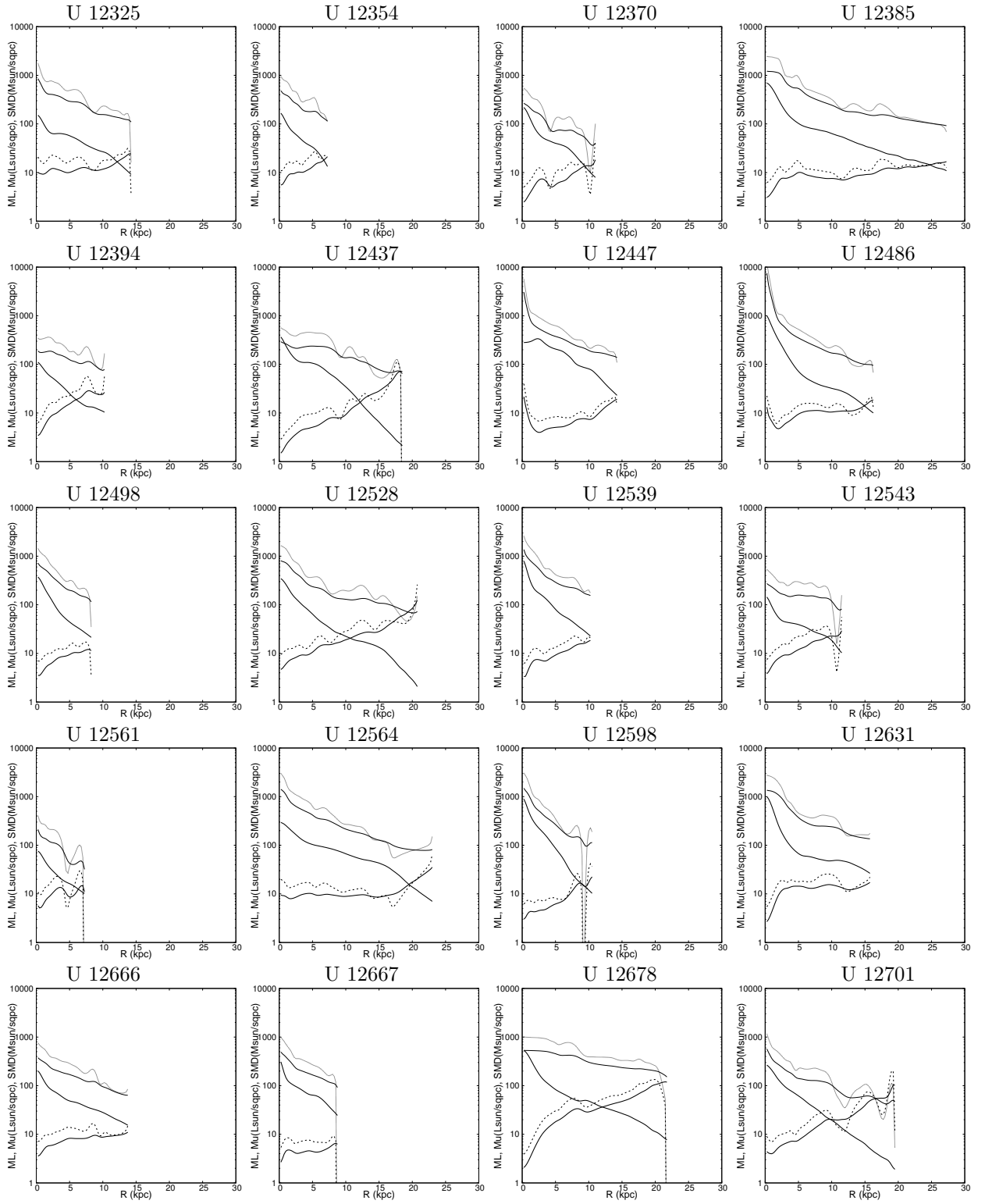


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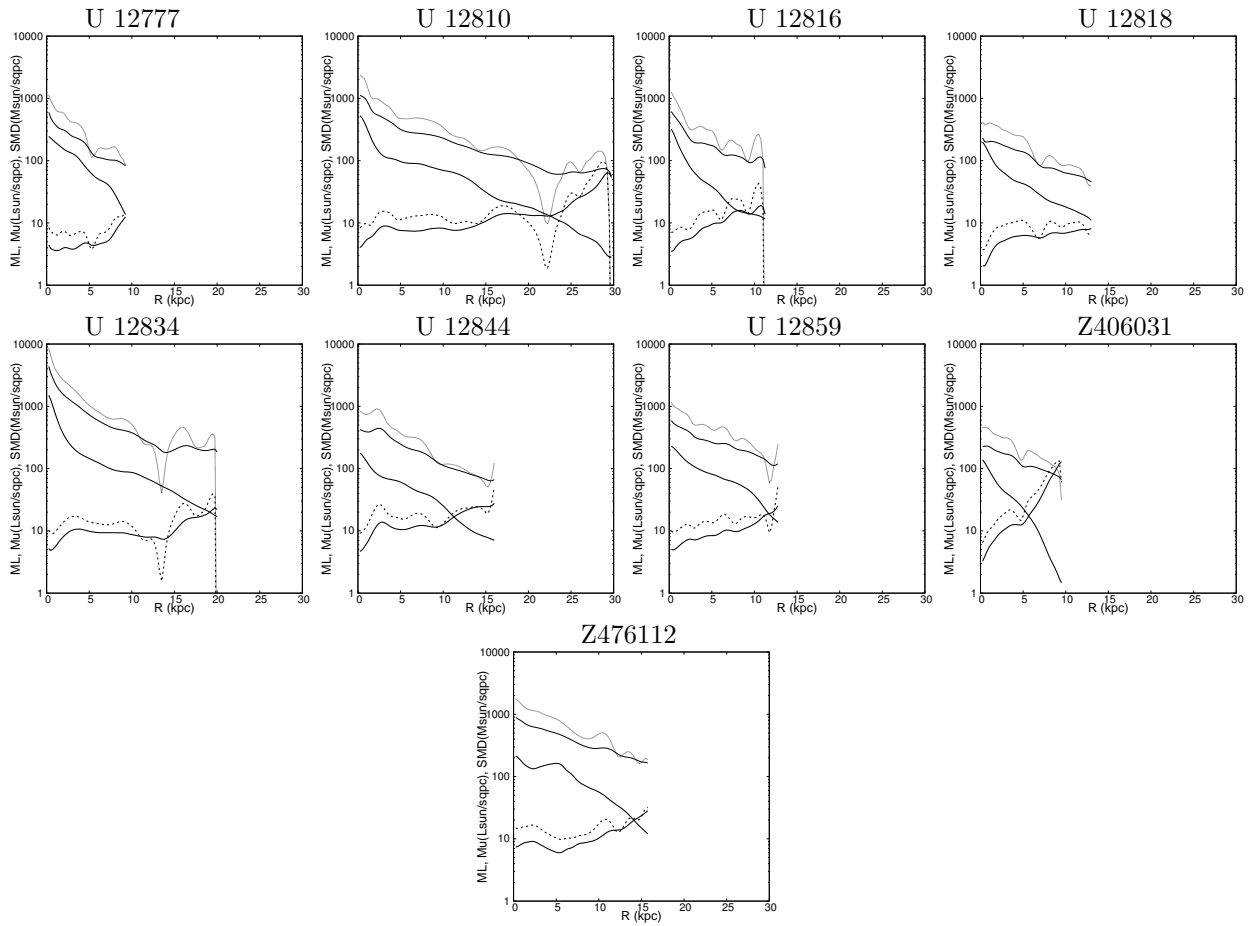


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