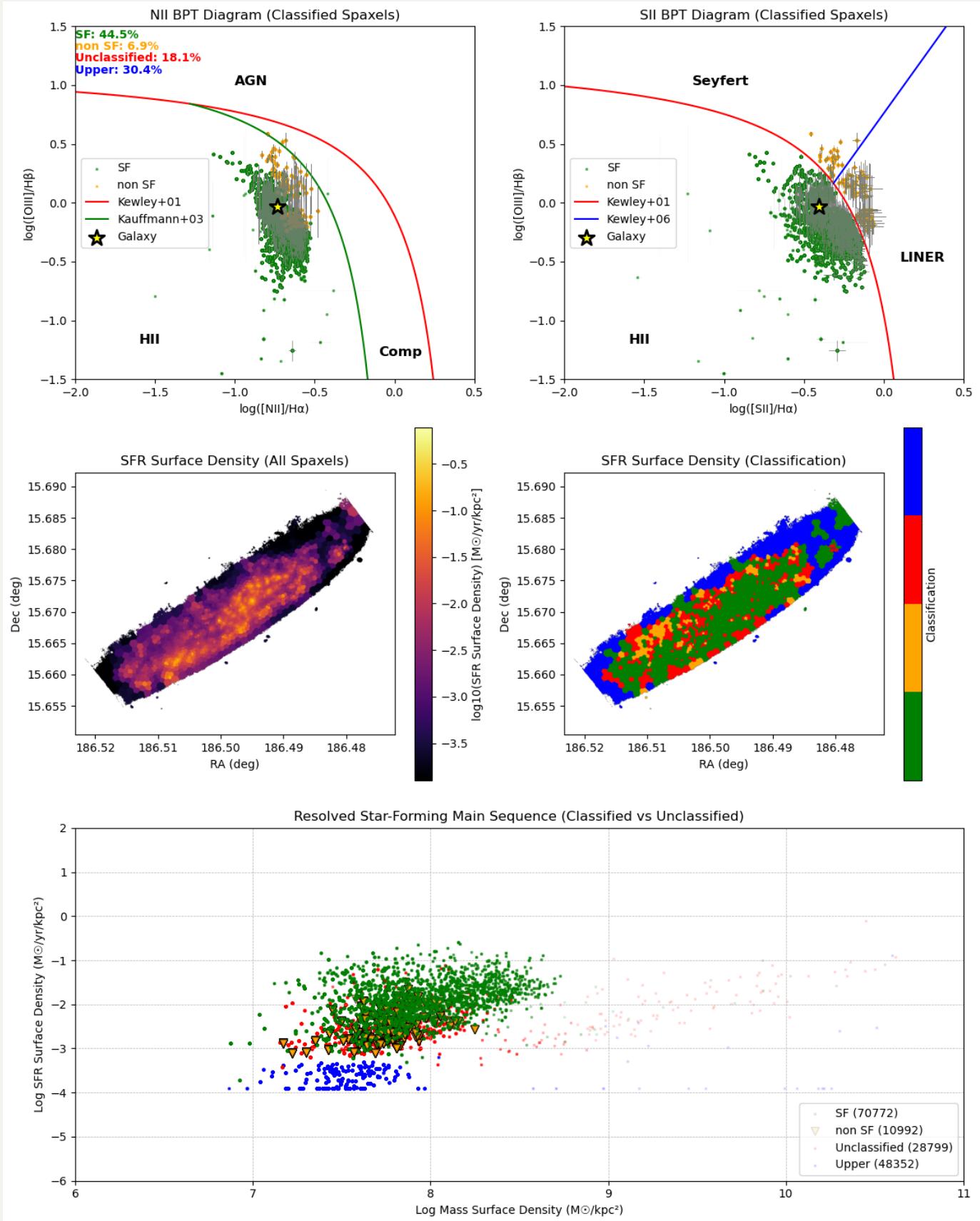


# 20250804 rMZR by D16 and PG16

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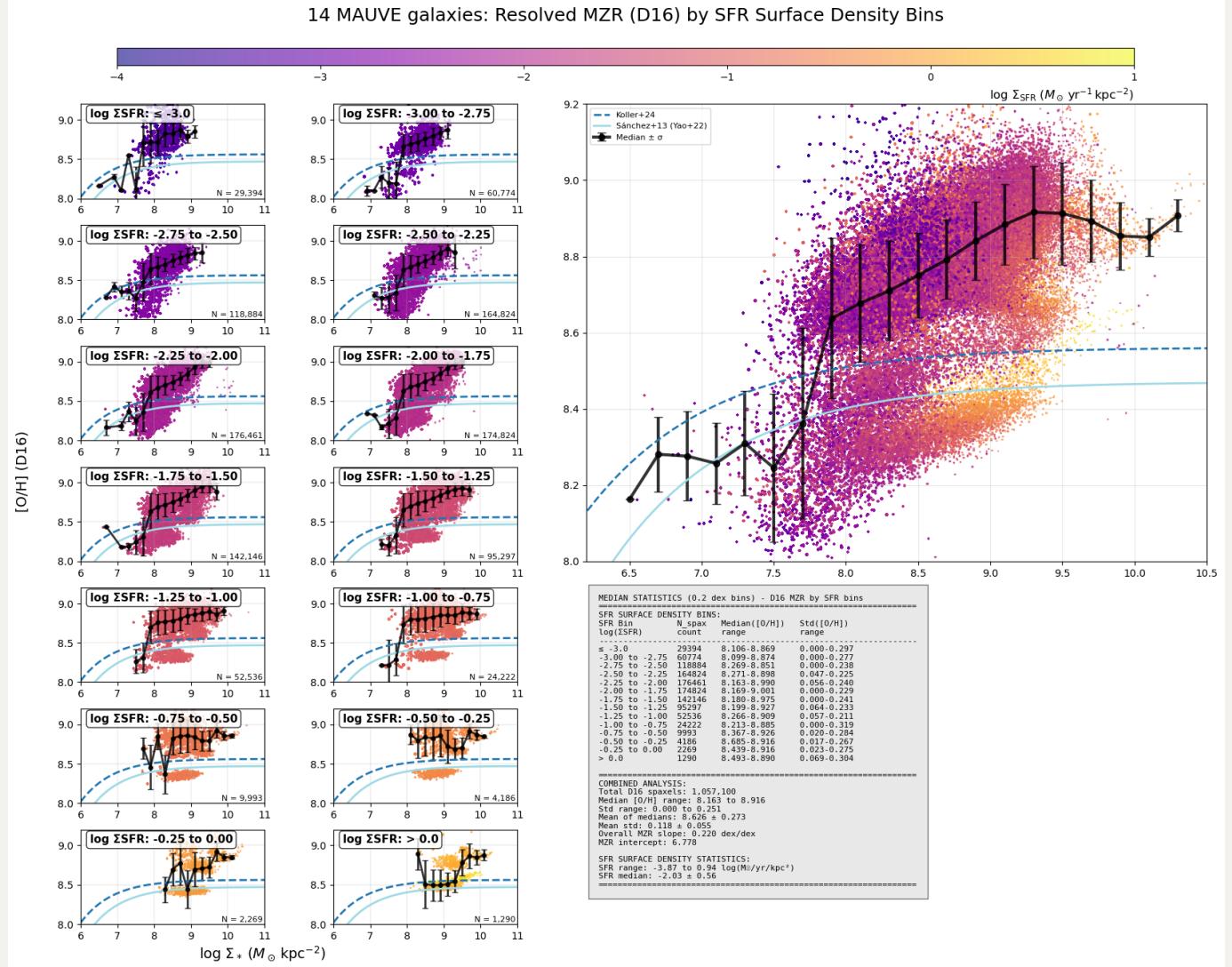
**NGC4396**



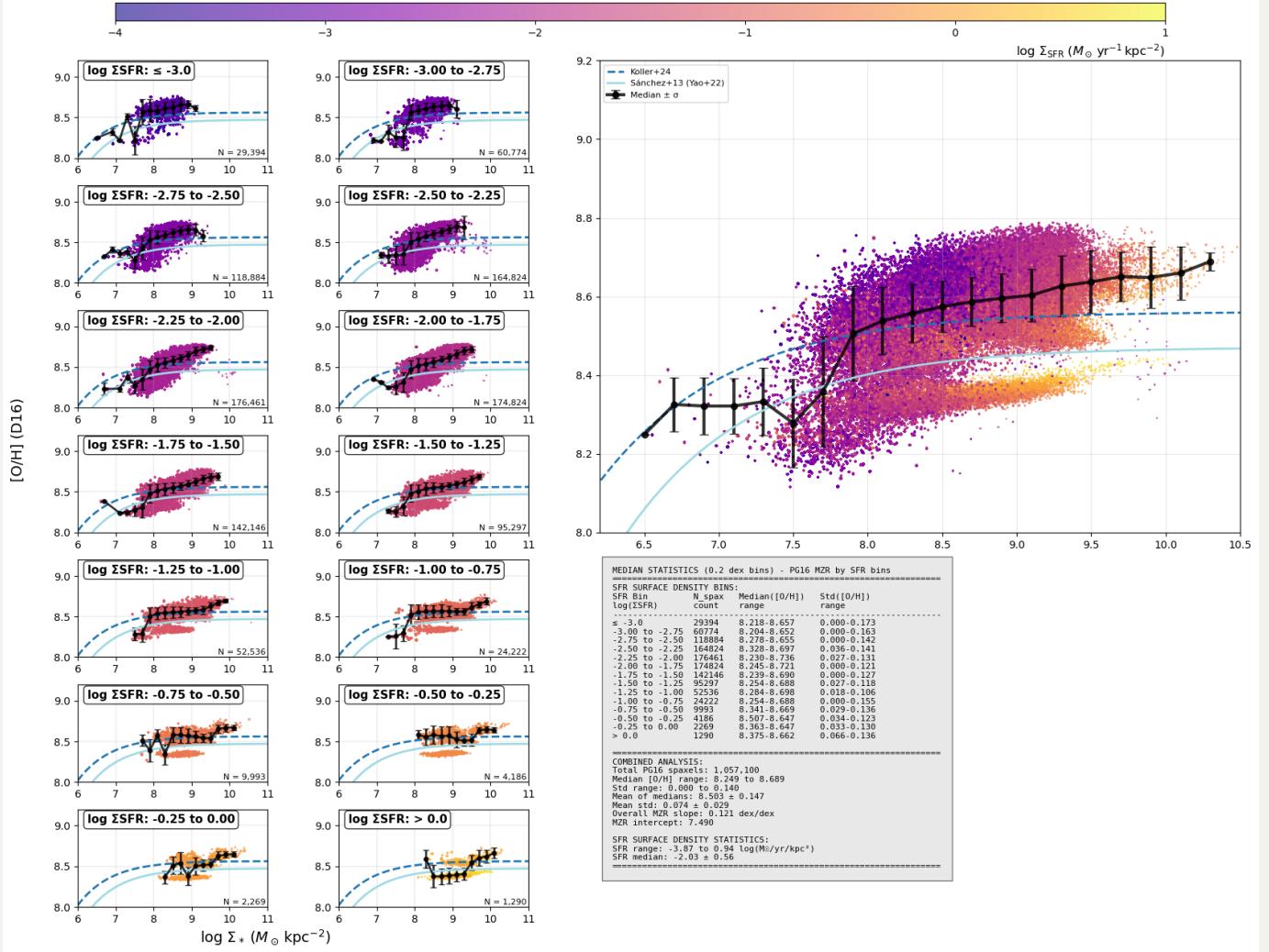
I go back to check NGC4396, but I dont spot anything unusual. I guess if we want to check radiation field, we may need to calculate the ionization parameters, etc.

# rMZR dependent on local property $\Sigma_{\text{SFR}}$ ?

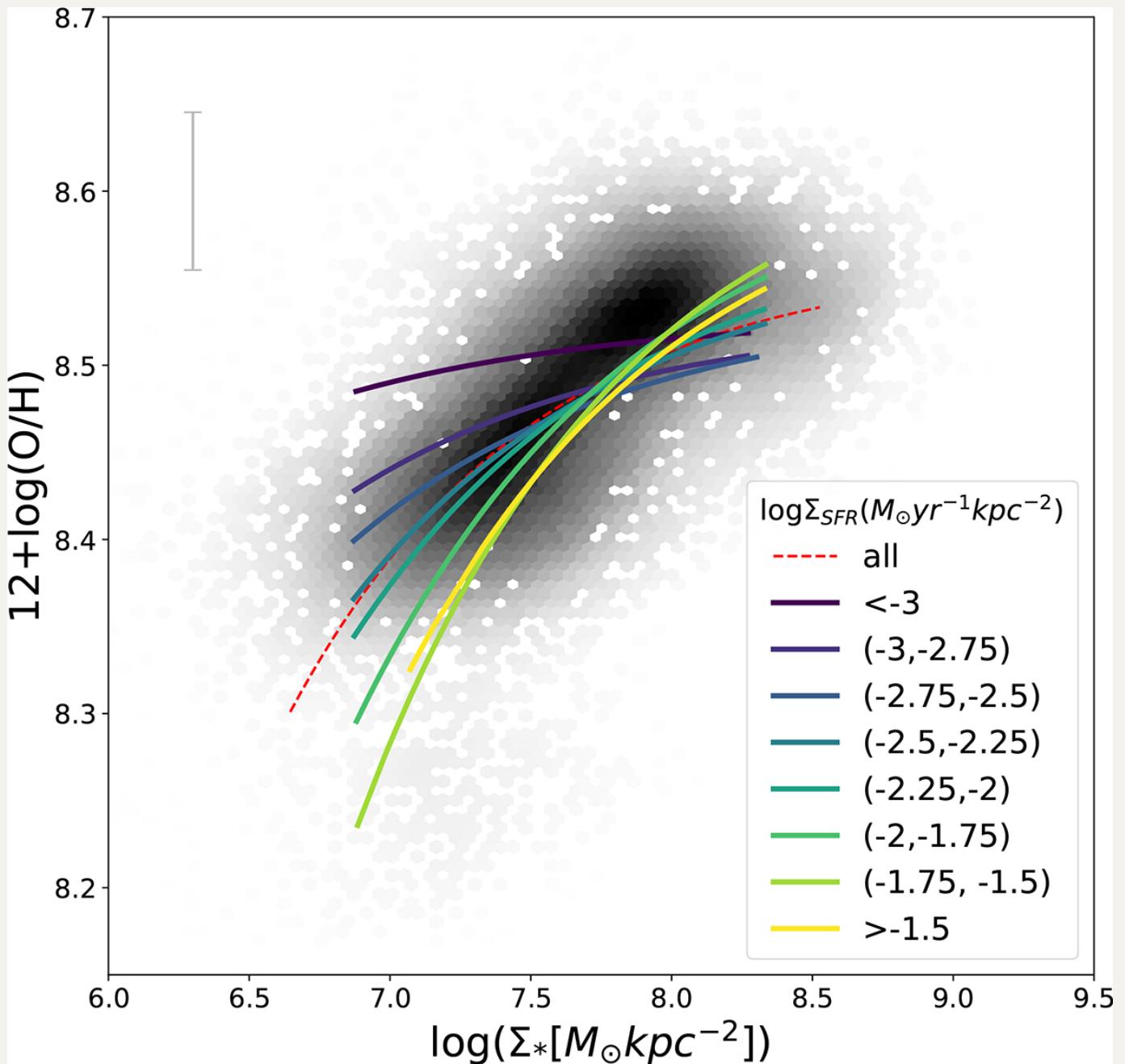
Instead of showing rMZR of individual galaxy, I regroup them in different SFR bins.



## 14 MAUVE galaxies: Resolved MZR (PG16) by SFR Surface Density Bins



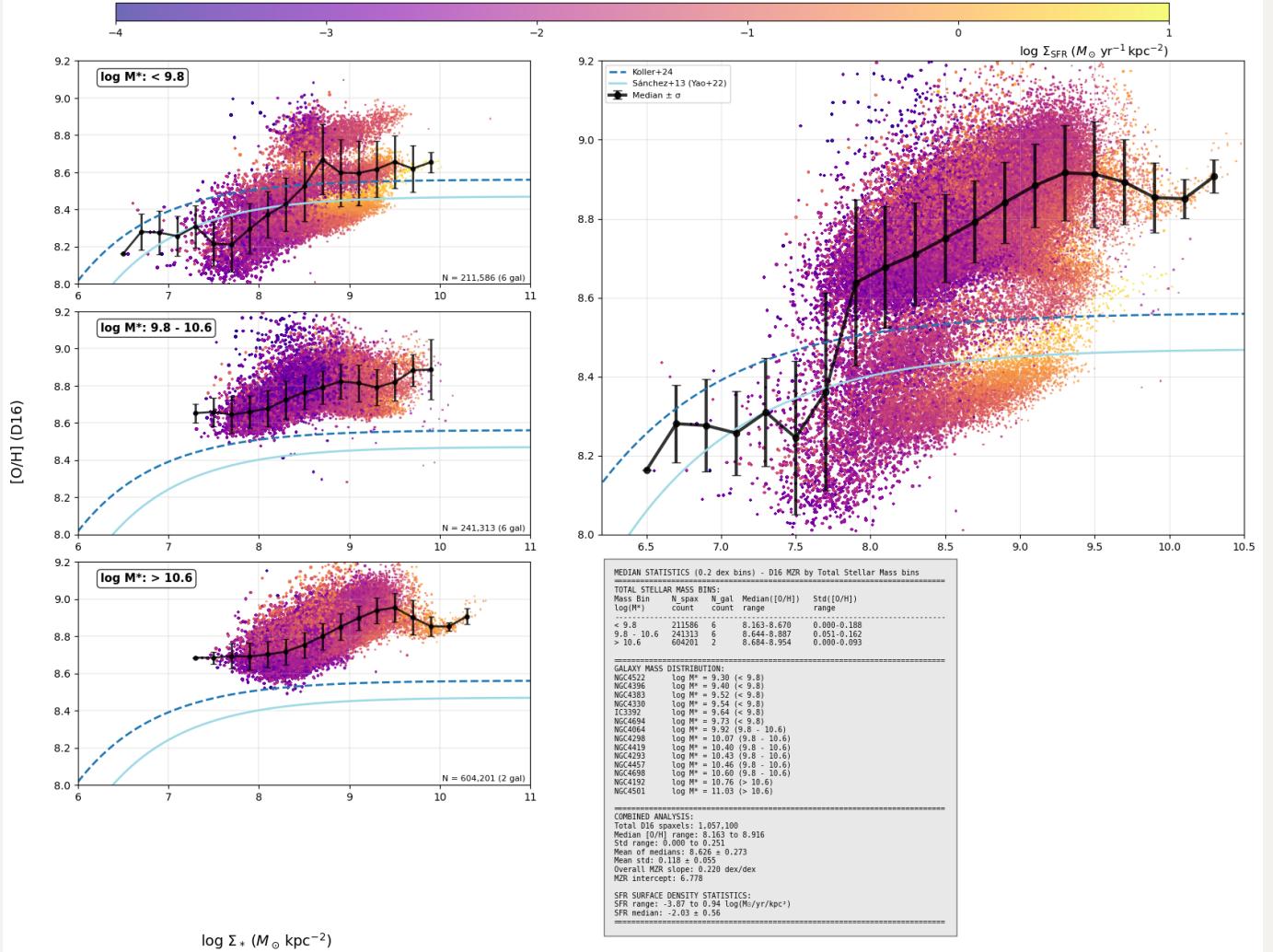
Unfortunately, I do not observe any anti-correlation between  $\Sigma_{\text{SFR}}$  and  $[\text{O/H}]$ . I suspect this may due to lack of complete data in  $\Sigma_* < 7.8 M_{\odot}/\text{kpc}^2$ , which is the regime that Koller+2024 report that anti-correlation:



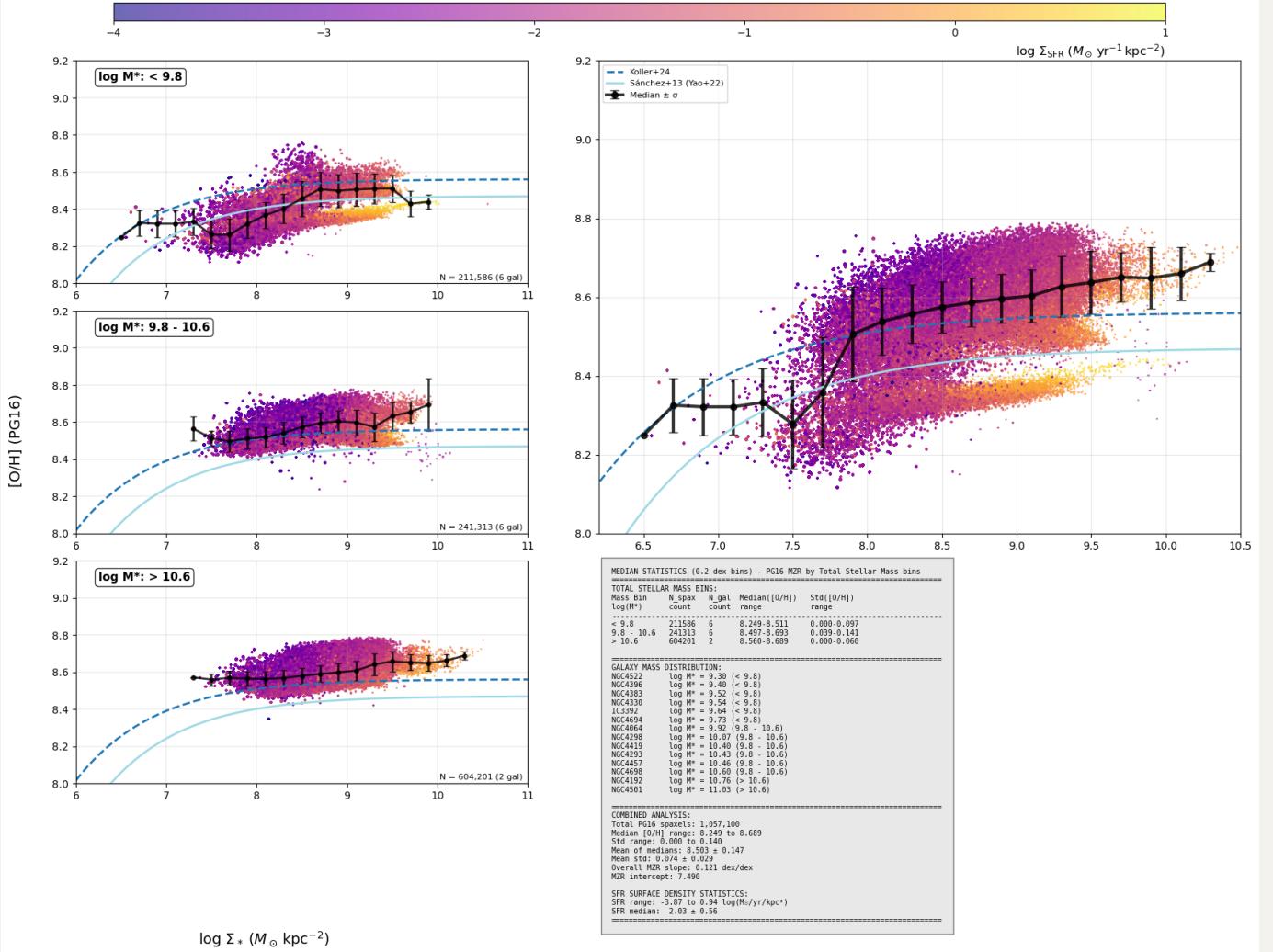
rMZR dependent on global property  $\log(M_*)$ ?

Actually, it seems that rMZR is still sensitive to total stellar mass: low-mass galaxies are a bit metal-poorer?

## 14 MAUVE galaxies: Resolved MZR (D16) by Total Stellar Mass Bins

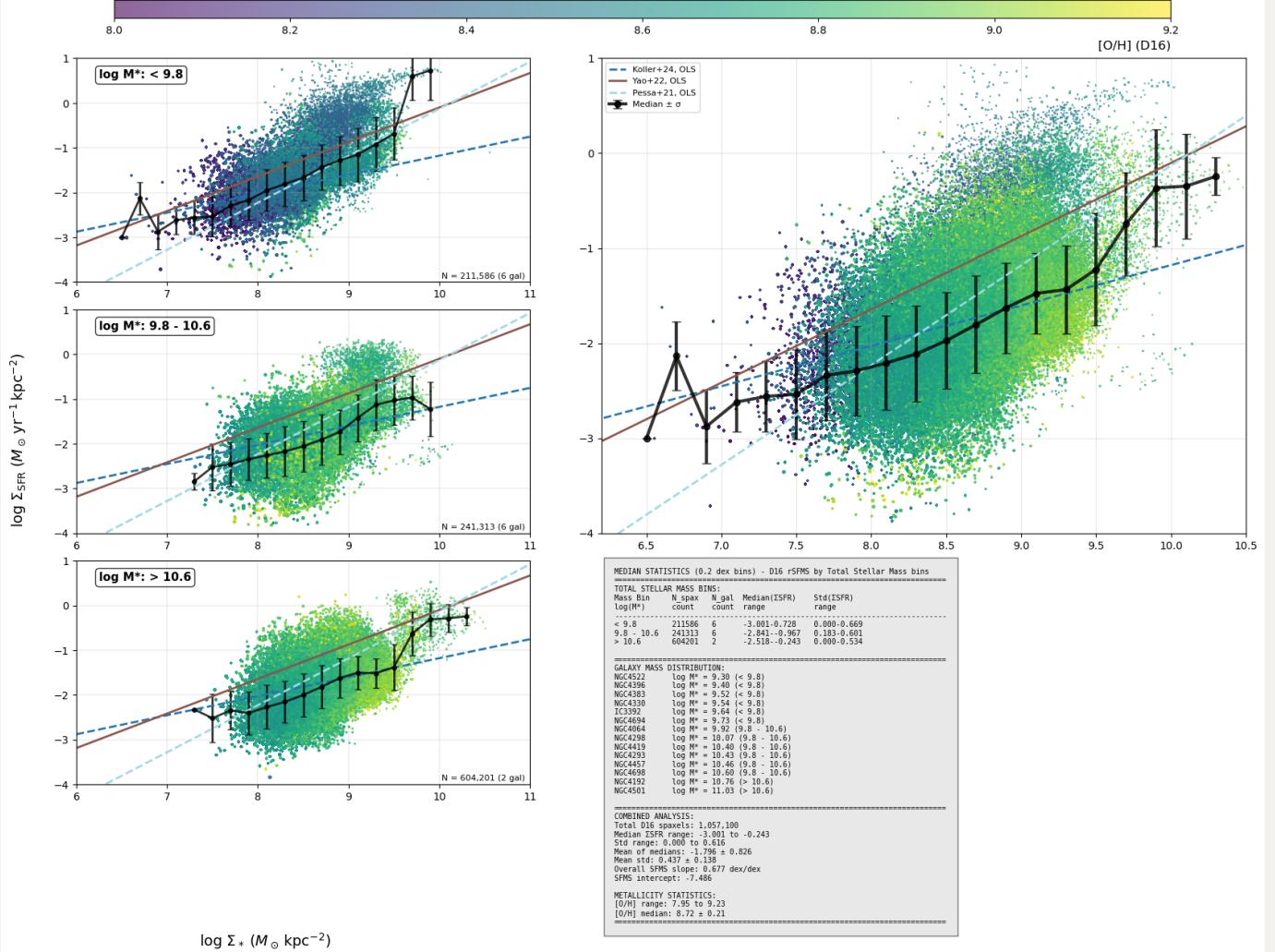


## 14 MAUVE galaxies: Resolved MZR (PG16) by Total Stellar Mass Bins

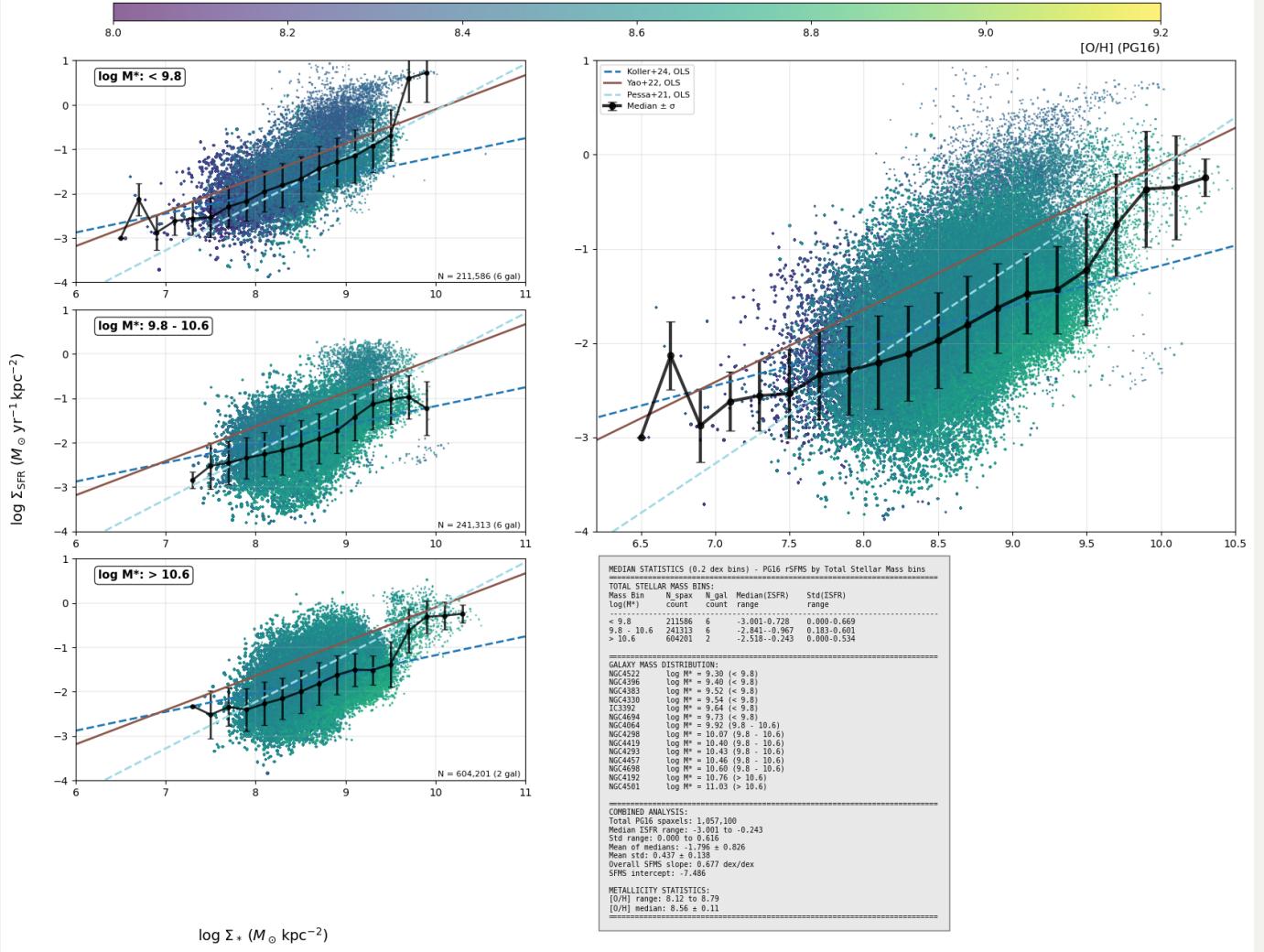


Also show the rSFMS in different total stellar mass bins:

## 14 MAUVE galaxies: Resolved SFMS by Total Stellar Mass Bins colored by D16 [O/H]



## 14 MAUVE galaxies: Resolved SFMS by Total Stellar Mass Bins colored by PG16 [O/H]



As a comparison, below is Figure 7 from Baker+2023:

