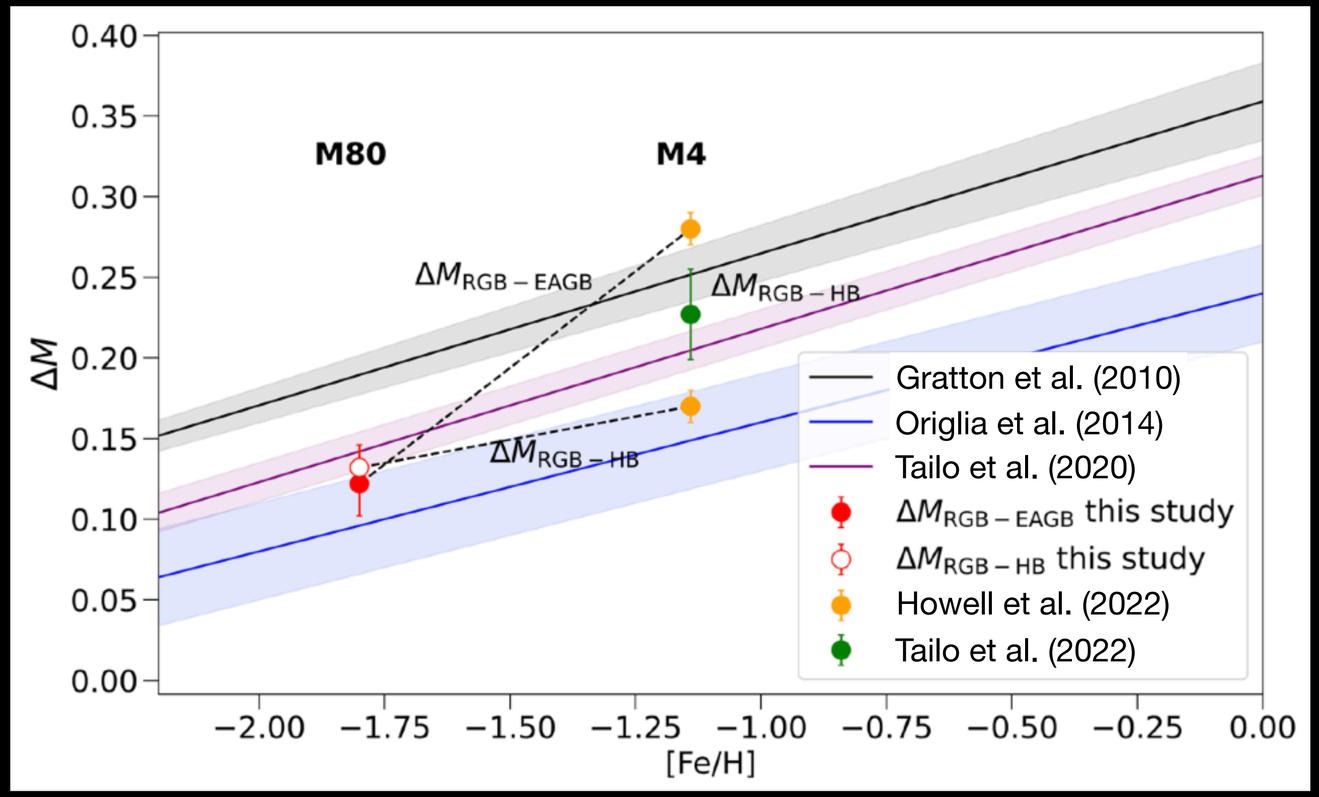
Comparison with Mass loss expected

Comparison of the integrated mass loss for SP1



- They conclude their analysis with a comparison with gradients expected from previous studies
- The differences in M80 vs M4 suggest that could be due to the metallicity dependence of mass loss

	HB*	EAGB	ΔM_{RGB-HB}*	$\Delta M_{RGB-EAGB}$
M_{SP1}	0.65 ± 0.03	0.66 ± 0.02	0.13 ± 0.03	0.12 ± 0.02
M_{SP2}	0.53 ± 0.03	0.53 ± 0.02	0.25 ± 0.03	0.25 ± 0.02

Howell, M., 2023. doi:10.48550/arXiv.2307.07158.

In summary

- They estimate Seismic Masses for Stars in RGB and E-AGB, looking for integrated differences between stages and sub populations
- They do not detect a mass bimodality in the RGB sample and this is in agreement with the expected small mass difference between sub-populations of 0.015 M from models
- They detected a distinct bimodal mass distribution in the EAGB sample, which is likely a detection of a mass difference between the MPs, since there’s a match between the peaks in AGB and HB (observed and modeled respectively) suggest that despite the small sample and uncertainties this pattern is real
- The subpopulation has different mass loss rates
- From comparison with M4 study and with previous expected trend is reaffirmed that there’s a dependance in mass loss and metallicity
- An spectroscopic analysis will confirm or denied this research