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sMILES SSPs: a library of semi-empirical MILES stellar population models with variable $[\alpha/\text{Fe}]$ abundances

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Knowles, AT, Sansom, AE, Vazdekis, A and Allende Prieto, C (2023) sMILES SSPs: a library of semi-empirical MILES stellar population models with variable $[\alpha/\text{Fe}]$ abundances. Monthly Notices of the Royal Astronomical Society. 523 (3). pp. 3450-3470. ISSN 0035-8711

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Correction to: sMILES SSPs: a library of semi-empirical MILES stellar population models with variable $[\alpha/\text{Fe}]$ abundances

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Key words: errata, addenda – stars: abundances – stars: atmospheres – techniques: spectroscopic – galaxies: stellar content – galaxies: abundances.

This is a correction to the paper ‘sMILES SSPs: a library of semi-empirical MILES stellar population models with variable $[\alpha/\text{Fe}]$ abundances’ that was published Monthly Notices of the Royal Astronomical Society, Volume 523, Issue 3, August 2023, Pages 3450–3470, <https://doi.org/10.1093/mnras/stad1647>.

In the originally published version of this manuscript (Knowles et al. 2023), figs 6 and 7 showed line index strengths for varying age, metallicity and $[\alpha/\text{Fe}]$ for sMILES SSP models at a resolution of $\sim 300 \text{ km s}^{-1}$, while these were meant to be presented for models at their nominal resolution of 2.5 \AA FWHM, as stated in the original figure captions. This error has significantly affected the index values given in those figures and therefore these need to be updated to the values corresponding to the correct resolution. All other figures and text within the manuscript are unaffected by this error. The corrected figures are provided on the next pages.

We thank both Marcos Muñoz-Cueli and Carlos Alonso-Alvarez (SISSA) for highlighting this issue to us.

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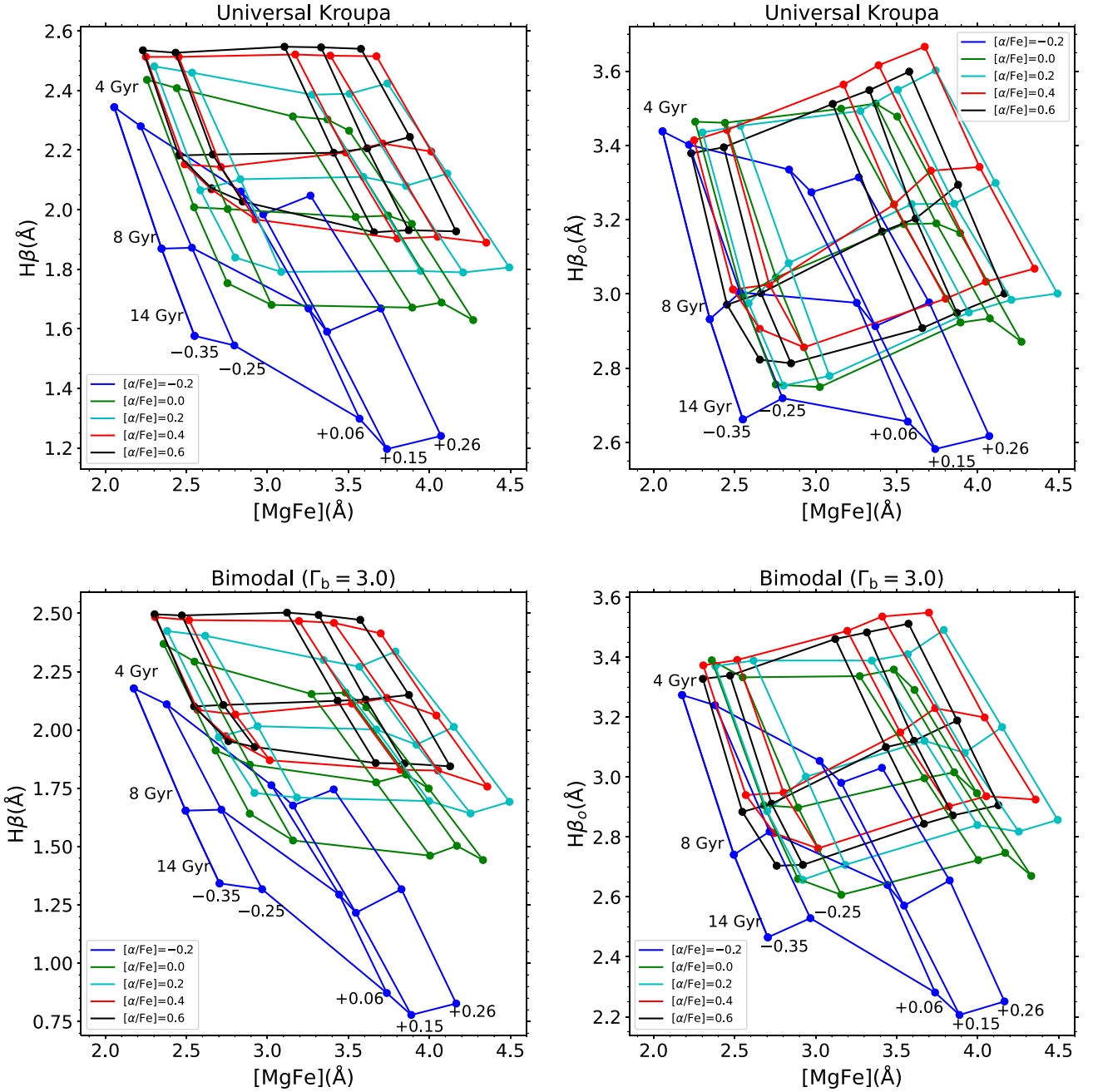


Figure 6. Updated Fig. 6: sMILES SSP predictions of $H\beta$, $H\beta_0$ and $[MgFe]$ index strengths for varying age, metallicity, and $[\alpha/Fe]$. Top panel: for a Universal Kroupa IMF. Bottom panel: for a Bimodal IMF with a slope $\Gamma_b = 3.0$. Grids show the effect of increasing total metallicity ($[M/H]_{SSP}$, moving from left to right in each grid) and age (increasing from top to bottom in each grid), respectively, as labelled. Index values are measured at MILES FWHM (2.5 Å) resolution.

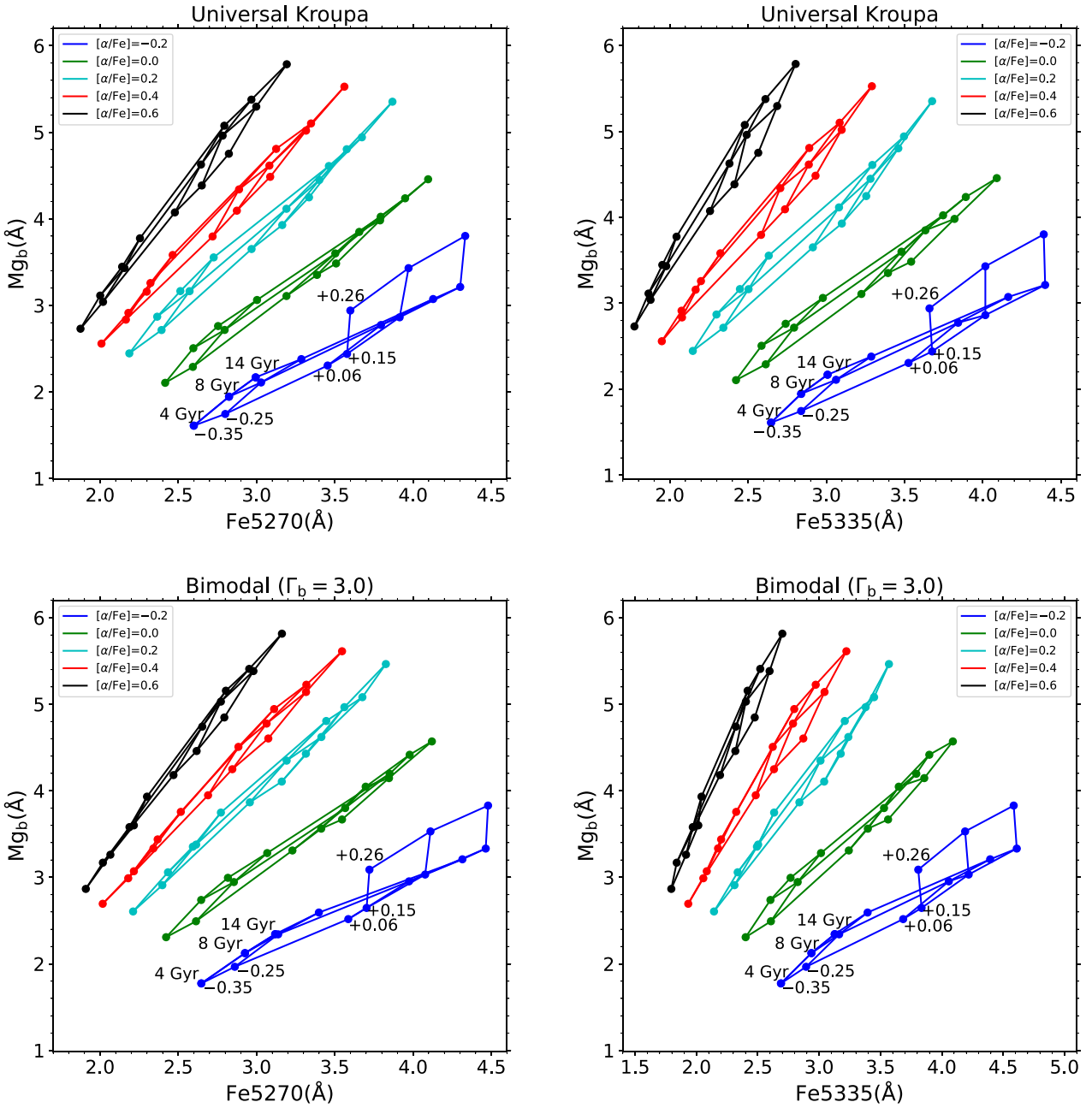


Figure 7. Updated Fig. 7: sMILES SSP predictions of Mg_b , Fe5270 and Fe5335 line strengths for varying age, metallicity, and $[\alpha/Fe]$. Top panel: for a Universal Kroupa IMF. Bottom panel: for a Bimodal IMF with a slope $\Gamma_b = 3.0$. Grids show the effect of changing total metallicity ($[M/H]_{SSP}$, moving from left to right in each grid) and age (increasing from bottom to top in each grid), respectively, as labelled. Index values are measured at MILES FWHM (2.5 \AA) resolution.

REFERENCE

Knowles A. T., Sansom A. E., Vazdekis A., Allende Prieto C., 2023, *MNRAS*, 523, 3450

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