Erratum: Transit spectroscopy with JWST: systematics, star-spots and stitching

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Figure 1. Spectra for 30 primary transits of an Earth orbiting an M dwarf at 10 pc. The spectrum on the right is binned up by a factor 5 to make the ozone band at 9.6 µm more obvious. The CO2 band at 4.3 µm is also clearly visible. Dark/light grey shading indicates 1σ/2σ error bars.

We publish an erratum to the paper Barstow et al. (2015). Fig. 18 of the paper is incorrectly described as showing primary transit spectra of a true Earth analogue orbiting an M dwarf at 10 pc distance; in fact, this figure shows the case for a 2R_E rocky super-Earth with an Earth-like atmosphere. The correct figure for the true Earth analogue is included here (Fig. 1). All conclusions in the original paper remain unchanged, as although the planet:star area ratio is four times smaller in the true Earth case when compared with the super Earth, the lower gravity of the planet results in an increased scaleheight and therefore larger absorption features relative to the baseline transit depth. The size of the features relative to the noise is very similar between the two cases.

REFERENCE


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