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Updating the PSA sun position algorithm

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Abstract and Figures

The algorithm for computing the solar vector of (Blanco et al., 2001) is revisited to improve its accuracy in the period 2020–2050, a period for which the algorithm was not initially designed. The resulting improved algorithm achieves a 25% decrease in the average error of the angular deviation with respect to the true solar vector (from a mean error of 11.81–8.78 arcsec), while simultaneously decreasing the range of variation of the error.



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