

Coherence loss in phase-referenced VLBI observations (Corrigendum)

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A&A 515, A53 (2010), DOI: 10.1051/0004-6361/201014203

We report an erratum in an equation that models the relation of the limiting dynamic range to the angular distance between target and calibrator.

Key words. instrumentation: interferometers – atmospheric effects – techniques: interferometric – errata, addenda

In Sect. 3.1 of Martí-Vidal et al. (2010b), we gave the following expression (Eq. (3))

$$f_{\text{at}} = K \frac{\nu}{\sqrt{\Delta t} \sin \theta}, \quad (1)$$

where $K \sim 12.4 h^{0.5} \text{ GHz}^{-1}$. This equation is inconsistent with the results reported in Sect. 5.3 of Martí-Vidal et al. (2010a). The correct expression should be, instead,

$$f_{\text{at}} = K \frac{\nu}{\sqrt{\Delta t}} \sin \theta, \quad (2)$$

where $K \sim 0.012 h^{0.5} \text{ GHz}^{-1}$. This new equation implies a different value of the constant k_1 in Eq. (4). The original value reported for k_1 was ~ 63 , while the correct value is $\sim 1.3 \times 10^4$.

Although Eq. (3) (together with the constants K and k_1) was incorrectly written in the text, we emphasize that all the figures in the paper were generated, indeed, using the correct equations and constants.

References

- Martí-Vidal, I., Guirado, J. C., Jiménez-Monferrer, S., & Marcaide, J. M. 2010a, A&A, 517, A70
Martí-Vidal, I., Ros, E., Pérez-Torres, M. A., et al. 2010b, A&A, 515, A53