

# Gaia Data Release 1

## Principles of the photometric calibration of the G band (Corrigendum)

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This paper provides two corrections to the original paper that were due to typographical mistakes. These modifications do not affect the results included in the paper. In our study we used the correct equations and these typographical errors were introduced only while writing the document.

### 1. First correction

The zero point term in the across-scan (AC) dependency ( $j = 0$ ) in Eq. (2) of the original paper (large scale, LS, calibration model) need to be deleted. Actually, the small scale (SS) term (Eq. (3) in the original document) already accounts for this zero point. Thus, the correct expression for Eq. (2) is the following:

$$LS_{skl} = \sum_{r=1}^R \sum_{m=1}^M A_{rml} \cdot (C_{sm})^r + \sum_{j=1}^J B_{jl} \cdot (\mu_k)^j. \quad (1)$$

This change affects Table 4 listing the number of coefficients in the model. The new table is now Table 1 in this document.

### 2. Second correction

Equations (6) and (7) in the original document need corrections. The correct Eq. (6) (weighted mean flux) is:

$$\bar{I}_s = \frac{\sum_k I_{sk} w_k}{\sum_k w_k}. \quad (2)$$

**Table 1.** Number of coefficients used in *Gaia* DR1 for a given calibration unit ( $l$  or  $l'$ ).

	Equation limits	$N_{\text{coefs}}$	Coefficients
LS	$R = 1, M = 6, J = 2$	8	$A_{11l}, A_{12l}, A_{13l},$ $A_{14l}, A_{15l}, A_{16l},$ $B_{1l}, B_{2l}$
SS	$R' = 0, M' = 1$	1	$a_{01l'}$

and the correct Eq. (7) (error on weighted mean flux) is:

$$\sigma_{\bar{I}_s} = \sqrt{\frac{\sum_k I_{sk}^2 w_k - \bar{I}_s^2 \sum_k w_k}{N_{\text{obs}} - 1}} \cdot \frac{1}{\sqrt{\sum_k w_k}}. \quad (3)$$

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