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Corrigendum

Corrigendum to "Evaluation of measurement uncertainty in analytical assays by means of Monte-Carlo simulation" [Talanta 64/2 (2004) 415–422]☆

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The authors regret that during the preparation of the above paper the computation corresponding to uncertainty in mass calibration (section 3.2), some errors were introduced by confusion of units (g and mg) for the standard calibration weight. Accordingly, the results obtained from GUM approach and Monte-Carlo simulations are partially biased (pag. 7) and Table 5. The corrected results are:

For GUM approach:
The result obtained in $m_{w,c} = 100001.234$, with a combined uncertainty of $u(m_{w,c}) = 0.0539$ and an expanded uncertainty obtained upon normality assumption for about the 95% confidence level using a coverage factor $k = 2$: $U(m_{w,c}) = 0.1078$.

For Monte Carlo simulation:
The value of the measurement $m_{w,c}$ result cell is then computed as $f_x = (B1 + B2) * (1 + (B3 - 1.2) * ((1/B4) - (1/B5))$ and then is selected as the forecast cell. A value of $M = 100{,}000$ trials was selected. The results were:

Mean value: 100001.2342 mg
Median: 100001.2339 mg
Standard deviation: 0.0752 mg
Skewness: 0.0000
Confidence interval for 95%: [100001.0860, 100001.3824]

The Table 5, suitably modified is shown below:

Table 5
Comparison of the results obtained using the GUM approach and Monte-Carlo Simulation (MCS) to the calibration of mass

	GUM	MCS
Mean value	100001.2340	10001.2342
Standard uncertainty	0.0539	0.0752
Coverage factor	2.0	1.97
Expanded uncertainty	0.1078	0.1482

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