Erratum

Accurate early positions for Swift GRBs: enhancing X-ray positions with UVOT astrometry

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In our original manuscript (Goad et al. 2007, DOI: 10.1051/0004-6361:20078436), our representation of the matrix formulation describes the transformation from XRT to UVOT detector coordinate systems (a reflection followed by a rotation plus an offset) is transcribed incorrectly. The equation used in our automated astrometric correction software is correctly represented as:

\[
\begin{pmatrix}
U_{\text{dexp}} \\
U_{\text{dety}}
\end{pmatrix} = \alpha \begin{pmatrix}
\cos \theta & -\sin \theta \\
-\sin \theta & -\cos \theta
\end{pmatrix} \begin{pmatrix}
X_{\text{dexp}} \\
X_{\text{dety}}
\end{pmatrix} + \begin{pmatrix}
\delta \\
\epsilon
\end{pmatrix},
\]

(1)

The published UVOT-enhanced GRB positions have always used the matrix formulation described here and therefore remain unchanged by this purely typographical error. Additionally the quoted values for the coefficients given in our original manuscript are those appropriate to the transformation as described here and also remain unchanged.

We thank Vanessa McBride (University of Southampton) for noting the typographical error in our original manuscript and would like to apologise for any inconvenience this may have caused.