

ERRATUM

AN ALGORITHM FOR THE INVERSE SOLUTION OF GEODESIC SAILING WITHOUT AUXILIARY SPHERE – ERRATUM

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A number of errors in typesetting have been discovered in Tseng (2014), for which the Editor-in-Chief of *The Journal of Navigation* and Cambridge University Press apologise.

The following corrections to Tseng (2014) are made for Volume 67 Issue 5, Pages 825–844:

Page 827, in the line following Equation (5) replace $\tan\beta_V = \sqrt{1 - c^2/c}$ with $\tan\beta_V = \sqrt{1 - c^2}/c$.

Page 828, in the line following Equation (7) replace symbol “ u ” with symbol “ μ ” in two expressions ($u = \sqrt{1 - c^2 - x^2}$ and $\sigma = \arctan(x/u)$).

Page 832, Figure 6: units should be added (degree ° for β_V and minute ' for A.R.).

Page 832, in the line following Equation (20) replace symbol “ u ” with symbol “ μ ” in two expressions and replace expression (having wrong signs) $\beta_V \leq \beta \leq -\beta_V$ with correction $-\beta_V \leq \beta_i \leq \beta_V, i = 1, 2$.

Page 835, in Equation (29) replace “ $0 \leq \beta_{12} \leq \pi$ ” with “ $0 \leq \lambda_{12} \leq \pi$ ”.

Page 835, in the paragraph following Equation (29) replace the sign (\leq) in expression $\lambda_{12} \leq (1 - f)\pi$ with the sign (\leq), the expression becomes a appropriate expression ($\lambda_{12} \leq (1 - f)\pi$).

Page 836, in Equation (32):

replace expression $NS = \begin{cases} 1, & (\lambda_{12} - \Delta\lambda_{NS}) > 0 \\ 0, & (\lambda_{12} - \Delta\lambda_{NS}) < 0 \end{cases}$ with $NS = \begin{cases} 1, & (\lambda_{12} - \lambda_{NS}) > 0 \\ 0, & (\lambda_{12} - \lambda_{NS}) < 0 \end{cases}$.

Page 837, in Equation (41) replace the equation

$$\tan \beta_V = \sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12}} / \sin \lambda_{12} \text{ with}$$

$$\tan \beta_V = \sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12}} / \sin \lambda_{12}$$

Page 837, in Equation (42) replace the equation

$$c = \cos \beta_V = \sin \lambda_{12} / \sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12} + \sin^2 \lambda_{12}} \text{ with}$$

$$c = \cos \beta_V = \sin \lambda_{12} / \sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12} + \sin^2 \lambda_{12}}$$

Page 837, in Equation (43) replace the equation $\pi \sqrt{1 - e^2} < \lambda_{12} \leq \pi$ with $\pi \sqrt{1 - e^2} < \lambda_{12} \leq \pi$.

Page 838, in second paragraph after Equation (47) replace “asteroid” with “astroid”.

Page 839, in third box from top in Figure 7 replace illogical expression $|\beta_1 + \beta_2| < eps$ with $|\beta_1| + |\beta_2| < eps$.

Page 839, in fourth box from top in Figure 7 replace the expression

$$\tan \beta_V = \tan^{-1} \left(\frac{\sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12}}}{\sin \lambda_{12}} \right) \text{ with}$$

$$\beta_V = \tan^{-1} \left(\frac{\sqrt{\tan^2 \beta_1 + \tan^2 \beta_2 - 2 \tan \beta_1 \tan \beta_2 \cos \lambda_{12}}}{\sin \lambda_{12}} \right) \text{ and}$$

replace $NS = IIF(\lambda_{NS} > 0, 1, 0)$ with $NS = IIF(\lambda_{12} - \lambda_{NS} > 0, 1, 0)$.

Page 840, in bottom paragraph replace the statement “The geodesic is slightly more curved than the great ellipse (see Figure 9).” with: “In the Mercator projection, the geodesic appears to be slightly more curved than the great ellipse (see Figure 9).”

Page 841, in Tables 1 and 2, column 1 replace typos “Karny” with “Karney”.

Page 843, in Reference Clairaut (1735) replace “perpendiculaireà” by “perpendiculaire à”.

Page 844, Reference Karney (2013) replace “43–42” with “43–55”.

Page 844, Reference Thomas and Featherstone (2005) replace typo “formual” with “formula”.

REFERENCE

- Tseng, W. K. (2014). An Algorithm for the Inverse Solution of Geodesic Sailing without Auxiliary Sphere. *The Journal of Navigation*, **67**, 825–844. doi:10.1017/S0373463314000228.