ERRATA

Erratum: “Fast Calculation of the Sensitivity Matrix for Responses to the Earth’s Conductivity: General Strategy and Examples” [Izvestiya, Physics of the Solid Earth 46 (9), 788–804 (2010)]

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On page 791, right column, line 6 from top, Eq. (33), $d\mathbf{H}_p = G^{hj}(d\sigma G^{ej}(\mathbf{j}_p))$: G should be semi-bold.

On page 792, right column, line 2 from top, should read *Differential of misfit (20) with respect to the variations in the distribution of the conductivity σ can be written in the form*

On page 793, right column, line 13 from top: should read *The expression $\xi = x, y$ means that variable ξ may take one of the alphabetical values, namely ‘x’ of ‘y’;...*

On page 796, left column, line 6 from bottom, Eq. (101) should read

$$\lambda_m = \sum_{\substack{\omega \in \Omega \\ p = 1, 2}} \int_{V_m} \mathbf{G}^{ej}(\mathbf{j}_p(\omega)) \cdot \mathbf{G}^{ej}(\mathbf{J}_p^E(\omega)) dv(\mathbf{r}),$$

$m \in Model,$

On page 799, the formulas (A8), (A9) and (A10): should read

$$\text{curl}\left(\frac{\text{curl}\mathbf{A}}{i\omega\mu}\right) - \sigma\mathbf{A} = \text{curl}\left(\frac{\mathbf{a}}{i\omega\mu}\right), \quad (\text{A.8})$$

$$\frac{1}{i\omega\mu} \text{curl}\left(\frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma}\right) = \mathbf{B}, \quad (\text{A.9})$$

$$\frac{1}{i\omega\mu} \text{curl}\left(\frac{\text{curl}\mathbf{B}}{\sigma}\right) - \mathbf{B} = \frac{1}{i\omega\mu} \text{curl}\left(\frac{\mathbf{b}}{\sigma}\right). \quad (\text{A.10})$$

$$\begin{aligned} \langle \mathbf{a}, \mathbf{G}^{hj}(\mathbf{b}) \rangle &= \langle \mathbf{a}, \mathbf{B} \rangle = \left\langle \mathbf{a}, \frac{1}{i\omega\mu} \text{curl}\left(\frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma}\right) \right\rangle = \left\langle \frac{1}{i\omega\mu} \mathbf{a}, \text{curl}\left(\frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma}\right) \right\rangle \\ &= \left\langle \text{curl}\left(\frac{1}{i\omega\mu} \mathbf{a}\right), \frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma} \right\rangle = \left\langle \text{curl}\left(\frac{\text{curl}\mathbf{A}}{i\omega\mu} - \sigma\mathbf{A}, \frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma}\right) \right\rangle \\ &= \left\langle \text{curl}\left(\frac{\text{curl}\mathbf{A}}{i\omega\mu}, \frac{\text{curl}\mathbf{B} - \mathbf{b}}{\sigma}\right) \right\rangle = \langle \mathbf{A}, \text{curl}\mathbf{B} \rangle + \langle \mathbf{A}, \mathbf{b} \rangle \\ &= \underbrace{\left\langle \text{curl}\mathbf{A}, \frac{1}{i\omega\mu} \text{curl}\left(\frac{\text{curl}\mathbf{B}}{\sigma}\right) \right\rangle - \left\langle \text{curl}\mathbf{A}, \frac{1}{i\omega\mu} \text{curl}\left(\frac{\text{curl}\mathbf{B}}{\sigma}\right) \right\rangle}_{\text{canceled}} \\ &\quad + \underbrace{\langle \text{curl}(\mathbf{A}, \mathbf{B}) \rangle - \langle \mathbf{A}, \text{curl}\mathbf{B} \rangle}_{\text{canceled}} + \langle \mathbf{A}, \mathbf{b} \rangle = \langle \mathbf{A}, \mathbf{b} \rangle = \langle \mathbf{G}^{eh}(\mathbf{a}), \mathbf{b} \rangle. \end{aligned}$$

On page 803, right column, first line in formulas (F.17) should read

$$\left\{ \begin{aligned} \Phi &= \text{Im}\mathbf{Y}(\text{Re}\mathbf{Y}_\tau)^{-1} = (\text{Im}\mathbf{Y})\underbrace{\Lambda\Lambda^{-1}}_1(\text{Re}\mathbf{Y}_\tau)^{-1} \\ &= \text{Im}\mathbf{Y}^{true}(\text{Re}\mathbf{Y}_\tau^{true})^{-1}, \\ \Psi &= (\text{Re}\mathbf{Z})^{-1}\text{Im}\mathbf{Z} = (\text{Re}\mathbf{Z}^{true})^{-1}\underbrace{\Lambda^{-1}\Lambda}_1\text{Im}\mathbf{Z}^{true} \\ &= (\text{Re}\mathbf{Z}^{true})^{-1}\text{Im}\mathbf{Z}^{true}, \end{aligned} \right. \quad (\text{F.17})$$

On page 804, left column, line 17 from bottom: should read *Thus, the two upper rows of the matrix Φ correspond to matrix Ψ besides the sign.*

On page 804, right column, item 9 in the References: should read *T. Koyama, "Possibility of Three-Dimensional Magnetotelluric (MT) Inversion by Using MT Phase Tensor data," in Proceedings of the 11th Scientific Assembly, August 23–30, Sopron, Hungary, 2009.*