ERRATUM: INVERSE PROBLEMS FOR ABSTRACT EVOLUTION EQUATIONS II: HIGHER ORDER DIFFERENTIABILITY FOR VISCOELASTICITY∗

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Key words. full waveform seismic inversion, viscoelastic wave equation, adjoint state method, nonlinear inverse and ill-posed problem, higher order Fréchet derivative

AMS subject classifications. 35F10, 35R30, 86A22

We need to announce the following corrections to our paper [1]:

1. In equations (2c) and (5c) there is wrongly a factor \( L \) in both arguments of the Hooke tensor \( C \). The other affected results can be straightforwardly corrected. For instance, in (6), (21), (23), (26c), (27c), and (34) the factors \( L \) or \( 1/L \) have to be canceled. There are further wrong appearances of \( L \) and \( 1/L \) in no-numbered equations.

2. Some of the tensors introduced and used in Theorem 4.10 need corrections:

\[
\begin{align*}
\Psi_0^o &= \frac{\mu \tilde{\pi} - \tilde{\mu} \pi}{\mu(3\pi - 4\mu)} \varphi_0 + \frac{\tau_0 \mu \tilde{\pi} - \tau_0 \mu \pi}{\tau_0 \mu(3\tau_0 \pi - 4\tau_0 \mu)} \Sigma,
\Psi_t^o &= \left( \frac{\tilde{\rho}}{3\pi - 4\mu} - \frac{1}{(3\pi - 4\mu)^2} \right) \varphi_0 + \tau_t \left( \frac{\tilde{\rho}}{3\tau_t \pi - 4\tau_t \mu} + \frac{1}{(3\tau_t \pi - 4\tau_t \mu)^2} \right) \varphi_0,
\Psi_t^c &= -\alpha \left( \frac{\tilde{\rho}}{3\pi - 4\mu} - \frac{1}{(3\pi - 4\mu)^2} \right) \varphi_0 + \frac{1}{3\pi - 4\mu} \left( \frac{\tilde{\rho}}{3\pi - 4\mu} + \frac{1}{(3\pi - 4\mu)^2} \right) \Sigma.
\end{align*}
\]

These errors result from wrong expressions for \( S_0 \) and \( S_l \), \( l = 1, \ldots, L \), given in the proof of Theorem 4.10 (see top of page 2659). The true versions are

\[
\begin{align*}
S_0 &= \tilde{\rho}_2 \left( \frac{\tilde{\rho}_1}{\rho^2} + \frac{\tilde{\mu}_1}{\rho \mu} \right) \varepsilon(v) : \varphi_0 + \frac{1}{\rho} \left( \frac{\tilde{\pi}_1}{3\pi - 4\mu} - \frac{\tilde{\mu}_1 \pi}{\mu(3\pi - 4\mu)} \right) \text{div } v \text{ tr}(\varphi_0)
+ \tilde{\mu}_2 \left( \frac{\tilde{\rho}_1}{\rho \mu} + \frac{2\tilde{\mu}_1}{\mu^2} \right) \varepsilon(v) : \varphi_0
+ \left( \frac{2}{\rho^2} \frac{3\tilde{\mu}_1 \pi^2 - 4\tilde{\pi}_1 \mu^2}{\mu^2(3\pi - 4\mu)^2} - \frac{\tilde{\rho}_1}{\rho} \frac{\pi}{\mu(3\pi - 4\mu)} \right) \text{div } v \text{ tr}(\varphi_0)
\end{align*}
\]

∗October 7, 2020

Funding: This work was supported by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) Project-ID 258734477 SFB 1173.

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\[ + \tilde{\pi}_2 \left( \tilde{\rho}_1 \rho - 4 \tilde{\mu}_1 \rho \right) \left( 3 \tau^2 \pi - 4 \tau \mu \right) + 2 \left( 3 \tilde{\pi}_1 - 4 \tilde{\mu}_1 \right) \text{div } v \text{ tr}(\varphi_0) \]

and, for \( l = 1, \ldots, L, \)

\[ S_l = \tilde{\mu}_2 \left( \tilde{\rho}_1 \rho \tau s \mu + 2 \tilde{\rho}_1 \tau s^2 \mu^2 \right) \text{div } v \text{ tr}(\varphi_l) \]

3. Analogous corrections apply to Theorem A.3 and its proof resulting in

\[ \Upsilon^\rho \rho = \tilde{\pi}_2 \mu - \tilde{\mu}_2 \mu \rho \left( 2 \tau s \mu (\tau^2 \pi - 4 \tau \mu) \right) \]

4. Finally, we take the opportunity to fix a typo. On page 2640 we omitted a derivative icon. Here it is

\[ \mathcal{H}(p) \hat{p} = \Phi(p)^* \Phi(p) \hat{p} - \Phi(p)^* \Phi(p) \cdot \cdot \cdot (y - \Phi(p)). \]

REFERENCES