CORRECTION

Correction to: Radius of Investigation in Pressure Transient Testing

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Correction to: Transport in Porous Media
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The arguments in Eqs. (16) and (18) have typographical errors in the original publication of the article. The corrected equations are provided below.

$$
\begin{aligned}
\mathscr{P}&(r_d | \{p_m(t_i), i = 1, \ldots, N\}) \\
&\propto \exp\left[-\frac{1}{2\sigma^2} \sum_{i=1}^{N} \{p_w(t_i; \bar{r}_d) - p_w(t_i; r_d)\}^2 \right] \\
&= \exp\left[-\frac{N}{2\sigma^2} \left\langle \{p_w(t_i; \bar{r}_d) - p_w(t_i; r_d)\}^2 \right\rangle \right] \\
&\approx \exp\left[-\frac{1}{2\sigma^2 \Delta t} \int_0^T \{p_w(t; \bar{r}_d) - p_w(t; r_d)\}^2 \mathrm{d}t \right].
\end{aligned}
\tag{16}
$$

and

$$
\begin{aligned}
\mathscr{P}&(r_d | \{p_m(t_i), i = 1, \ldots, N\}) \\
&\propto \exp\left[-\frac{(r_d - \bar{r}_d)^2 P^2}{2\sigma^2 \bar{r}_d^2 \Delta t} \left(T e^{-\frac{2\bar{r}_d^2}{\eta T}} - \frac{2\bar{r}_d^2}{\eta} \Gamma\left(0, \frac{2\bar{r}_d^2}{\eta T}\right) \right) \right],
\end{aligned}
\tag{18}
$$

A factor two in the denominator of an argument in Eqs. (28), (30), and (32) is missing. These equations should read

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$$p_p(t) = p_0 + \frac{q\mu}{4kr_p}\operatorname{erfc}\left(\frac{r_p}{2\pi\sqrt{\eta t}}\right). \tag{28}$$

$$p_p(t;z_b) = p_0 + P\left[\operatorname{erfc}\left(\frac{r_p}{2\pi\sqrt{\eta t}}\right) + \frac{r_p}{2\pi z_b}\operatorname{erfc}\left(\frac{z_b}{\sqrt{\eta t}}\right)\right]. \tag{30}$$

$$p_p^{(1)}(t;r_p) = p_0 + P\operatorname{erfc}\left(\frac{r_p}{2\pi\sqrt{\eta t}}\right) + \frac{Pr_p}{2\pi\bar{z}_b}\operatorname{erfc}\left(\frac{\bar{z}_b}{\sqrt{\eta t}}\right)$$
$$- \frac{Pr_p(z_b - \bar{z}_b)}{\pi\bar{z}_b}\left[\frac{e^{-\frac{\bar{z}_b^2}{\eta t}}}{\sqrt{\pi\eta t}} + \frac{\operatorname{erfc}\left(\frac{\bar{z}_b}{\sqrt{\eta t}}\right)}{2\bar{z}_b}\right]. \tag{32}$$

Reference

Ramakrishnan, T.S., Prange, M.D., Kuchuk, F.J.: Radius of investigation in pressure transient testing. Trans. Porous Med. **131**(3), 783–804 (2020)