Correction

Correction to "An Analytical Approach to Calculation of Lightning Induced Voltages on Overhead Lines in Case of Lossy Ground—Part I: Model Development"

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The paper [1] had an incorrect (11b). It is shown in the correct form here, using the same equation number as in the paper. All of the results in the paper were obtained by using the correct equation and, therefore, are not affected. See equation (11b) at the bottom of the page.

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References

[1] A. Andreotti, A. Pierno, and V. A. Rakov, "An analytical approach to calculation of lightning induced voltages on overhead lines in case of lossy ground—Part I: model development," *IEEE Trans. Power Del.*, vol. 28, no. 2, pp. 1213–1223, Apr. 2013.

$$v_{i1}(0,t) = -\frac{\mu_0}{4\pi}\alpha\left\{\frac{d}{\beta}\left[\operatorname{atan}\left(\frac{\lambda}{d}\right) - \operatorname{atan}\left(\frac{\lambda_0}{d}\right) - \operatorname{atan}\left(\frac{\beta d}{\sqrt{\lambda^2+\delta^2}}\right) + \operatorname{atan}\left(\frac{\beta d}{\sqrt{\lambda_0^2+\delta^2}}\right)\right]\right.$$
$$- \sqrt{\lambda^2+\delta^2} + \sqrt{\lambda_0^2+\delta^2} + \lambda\left\{\ln\left(\lambda + \sqrt{\lambda^2+\delta^2}\right) + \frac{1}{\beta}\left[\ln\left(-\beta\lambda + \sqrt{\lambda^2+\delta^2}\right) - 1\right]\right\}$$
$$\left. - \lambda_0\left\{\ln\left(\lambda_0 + \sqrt{\lambda_0^2+\delta^2}\right) + \frac{1}{\beta}\left[\ln\left(-\beta\lambda_0 + \sqrt{\lambda_0^2+\delta^2}\right) - 1\right]\right\}\right\} u(t-t_0). \quad \text{(11b)}$$