

Erratum

Erratum to "Joint Delay Doppler Probability Density Functions for Air-to-Air Channels"

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In the article titled "Joint delay Doppler probability density functions for air-to-air channels," International Journal of Antennas and Propagation, Volume 2014 (2014), Article ID 814218, 11 pages, http://dx.doi.org/10.1155/2014/814218, errors occurred in (14), (19), and (20).

(*I*) Equation (14). The semimajor axis $a_{\rm ell}$ and the semiminor axis $b_{\rm ell}$ in (14) have to be calculated as

$$a_{\text{ell}} = \sqrt{\left(\frac{p}{a}\right)^2 - \frac{d}{a}},$$

$$b_{\text{ell}} = \sqrt{\frac{p^2}{ab} - \frac{d}{b}}.$$
(14)

The offset from the origin $[x_c, y_c]$ is correct.

(II) Equation (19). It should read as follows:

$$p(\phi \mid \tau) = \frac{\sqrt{1 - \epsilon_{\tau}^2 \cos^2 \phi}}{4E(\epsilon_{\tau})}.$$
 (19)

(III) Equation (20). It should read as follows:

$$p(\phi \mid \tau; \kappa, \mu)$$

$$= \frac{\sqrt{1 - \epsilon_{\tau}^{2} \cos^{2} \phi}}{4E(\epsilon_{\tau})} \times \frac{\exp\left\{\kappa \cos\left(\left(\pi/2E(\epsilon_{\tau})\right)\left(\int_{0}^{\phi} \sqrt{1 - \epsilon_{\tau}^{2} \cos^{2} \zeta} \,d\zeta - \mu\right)\right)\right\}}{I_{0}(\kappa)},$$
(20)

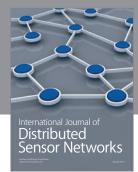
with κ being the concentration parameter of the distribution and μ being the centrality parameter of the distribution, that is, the place on the ellipse, where the dominant scatterers come from. The centrality parameter is given by $\mu = \int_0^{\overline{\phi}} \sqrt{1 - \epsilon_\tau^2 \cos^2 \zeta} \, d\zeta$ and $I_0(\kappa)$ is the modified zeroth order Ressel function of the first kind

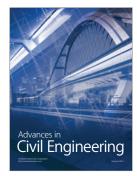
















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