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Erratum to: A Wald test with enhanced selectivity properties in homogeneous environments

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After publication of our work [1] we noticed the following mistakes:

Equation (3) should be

$$I(\boldsymbol{\theta}) = \mathbb{E}\left[\left(\frac{\partial \ln f(\boldsymbol{x}, \boldsymbol{X}; \boldsymbol{\theta})}{\partial \boldsymbol{\theta}^*}\right) \left(\frac{\partial \ln f(\boldsymbol{x}, \boldsymbol{X}; \boldsymbol{\theta})}{\partial \boldsymbol{\theta}^T}\right)\right]$$
(3)

Equation (5) should be

$$t_{\text{Wald}} = \left(\hat{\boldsymbol{\theta}}_{r_1} - \boldsymbol{\theta}_{r_0}\right)^H \left\{ \left[\boldsymbol{I}^{-1} \left(\hat{\boldsymbol{\theta}}_1 \right) \right]_{\boldsymbol{\theta}_r \boldsymbol{\theta}_r^*} \right\}^{-1} \left(\hat{\boldsymbol{\theta}}_{r_1} - \boldsymbol{\theta}_{r_0} \right)$$
(5)

The notation "-" in equations (6), (11), and (12) should be replaced by "-", i.e., the minus sign.

Equations (17), (18), and (19) should be

$$\tilde{t}_{ACE} = \frac{\tilde{\boldsymbol{x}}^H \boldsymbol{P} \tilde{\boldsymbol{s}} \tilde{\boldsymbol{x}}}{\tilde{\boldsymbol{x}}^H \boldsymbol{P} \tilde{\boldsymbol{s}}^{\perp} \tilde{\boldsymbol{x}}} = \frac{\|\boldsymbol{P} \tilde{\boldsymbol{s}} \tilde{\boldsymbol{x}}\|^2}{\|\boldsymbol{P} \tilde{\boldsymbol{s}}^{\perp} \tilde{\boldsymbol{x}}\|^2}$$
(17)

$$t_{\text{Wald}} = \frac{1}{1 + \|\tilde{\mathbf{x}}\|^2 \|\mathbf{P}\tilde{\mathbf{s}}^{\perp}\tilde{\mathbf{x}}\|^2 / \|\mathbf{P}\tilde{\mathbf{s}}\tilde{\mathbf{x}}\|^2}$$
(18)

and

$$\tilde{t}_{\text{Wald}} = \frac{\|\boldsymbol{P}\tilde{s}\tilde{\boldsymbol{x}}\|^2}{\|\boldsymbol{P}\tilde{s}^{\perp}\tilde{\boldsymbol{x}}\|^2 \|\tilde{\boldsymbol{x}}\|^2}$$
(19)

respectively.

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Reference

 W Liu, W Xie, Y Wang, A Wald test with enhanced selectivity properties in homogeneous environments. EURASIP J Adv Signal Process 2013, 14 (2013)

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