
Erratum: Usable and precise asymptotics for generalized linear mixed model analysis and design

In the article by [Jiang et al. \(2022\)](#), assumption (A3) concerning a moment condition is such that a power of 2 should be a power of 4. This erratum is due to an oversight by the authors in their proof of Lemma 1.

The corrected assumption (A3) is

(A3) The distribution of \mathbf{X} is such that

$$E \left[\frac{E[\max\{1, \|\mathbf{X}\|\}^8 \max\{1, b''((\beta_A + \mathbf{U})^T \mathbf{X}_A + \beta_B^T \mathbf{X}_B)\}^4 | \mathbf{U}]}{\min\{1, \lambda_{\min}(E\{\mathbf{X}_A \mathbf{X}_A^T b''((\beta_A + \mathbf{U})^T \mathbf{X}_A + \beta_B^T \mathbf{X}_B) | \mathbf{U})\})^2} \right] < \infty$$

for all $\beta_A \in \mathbb{R}^{d_A}$, $\beta_B \in \mathbb{R}^{d_B}$ and Σ a $d_A \times d_A$ symmetric and positive definite matrix.

In a similar vein, the statement of Lemma 1 is such that $\max\{1, f(\mathbf{X}, \mathbf{U})\}^2$ in equation (A9) should be replaced by $\max\{1, f(\mathbf{X}, \mathbf{U})\}^4$. Also, in the Lemma 1 proof

- between equations (A17) and (A18) the set $\{(0,0,0), (1,1,2), (2,0,2)\}$ should be replaced by $\{(0,0,0), (1,1,2), (2,0,4)\}$,
- in the last paragraph of Appendix A.4 the triple (2,0,4) should replace (2,0,2) in the set over which (p_1, p_2, p_3) takes values.

REFERENCE

Jiang J., Wand M.P. and Bhaskaran A. (2022). Usable and precise asymptotics for generalized linear mixed model analysis and design. *Journal of the Royal Statistical Society, Series B*, 84, 55–82.