Electronic Research Archive

http://www.aimspress.com/journal/era

ERA, 34(10): 7477–7479.
DOI: 10.3934/era.2026322
Received: 24 June 2026
Revised: 22 July 2026
Accepted: 12 August 2026
Published: 28 August 2026

Correction

Correction to "Assessing agreement between permutation and dropout variable importance methods for regression and random forest models" [*Electronic Research Archieve* 32(7) (2024) 4495–4514]

Kelvyn Bladen*and D. Richard Cutler

Department of Mathematics and Statistics, Utah State University, 3900 Old Main Hill, Logan, UT 84322, USA

* **Correspondence:** Email: kelvyn.bladen@usu.edu; Tel: +1-435-258-7782.

Corrigendum to

"Assessing agreement between permutation and dropout variable importance methods for regression and random forest models" [*Electronic Research Archieve* 32(7) (2024) 4495–4514]
By Kelvyn Bladen and D. Richard Cutler
DOI: 10.3934/era.2024203

Following publication of this article [1], we identified an error in the presentation and interpretation of the out-of-bag permutation-and-predict variable importance results shown in Figures 4 and 6. The quantity labeled and discussed as OOB_PaP was, in fact, a scaled version of the measure. As a result, the figures and portions of the accompanying discussion did not represent the unscaled OOB_PaP metric. Figures 4 and 6 have been updated to include both the raw unscaled OOB_PaP measure and the scaled version, OOB_scale. The corrected versions of Figures 4 and 6 are reproduced below.

Corresponding revisions have been made to the discussion and conclusions. Specifically, several statements previously attributed to OOB_PaP should instead be attributed to OOB_scale. The revised manuscript also includes discussion of the behavior of the unscaled OOB_PaP metric.

These corrections do not affect the underlying analyses, methodology, or overall conclusions of the study regarding the relationships among variable importance measures. Rather, they provide a more accurate characterization of the behavior of the out-of-bag permutation-based importance metrics.

Additionally, Figures 7–10 have been updated to improve clarity and reduce redundant plotting information.

Changes are listed in chronological order with respect to their placement in the paper.

- Figure 4 updated to rename OOB_PaP to OOB_scale and to include OOB_PaP.
- Final bullet on Page 4504 revised to match new Figure 4.
- Figure 6 updated to rename OOB_PaP to OOB_scale and to include OOB_PaP.
- Bullets 3–7 on Pages 4506 revised to match new Figure 6.
- Figures 7–10 updated to combine redundant axis and legend information.
- Discussion paragraphs 4 and 5 revised to match new Figures 4 and 6.

This correction has been approved by the Editor-in-Chief. The authors apologize for any confusion caused by this error.

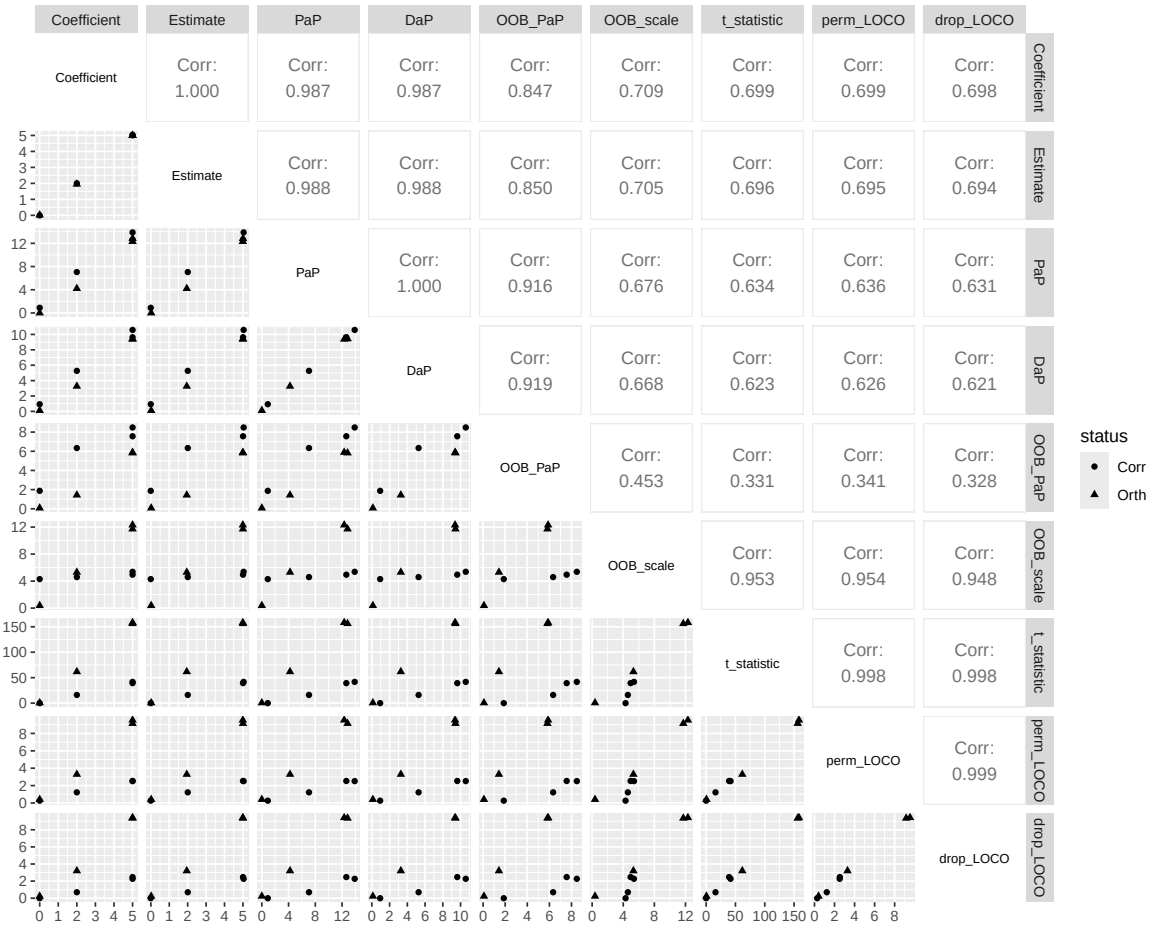

Figure 4. Comparative plots of importance metrics: regression model estimates and t-statistics and PaP and LOCO methods performed on a random forest model. Plot symbols denote the status of a given variable: whether it was part of the correlated or orthogonal group of features. The equation for the response is $y = 5Cor_1 + 5Cor_2 + 2Cor_3 + 0Cor_4 + 5v_5 + 5v_6 + 2v_7 + 0v_8 + \epsilon$, where $\epsilon \sim \mathcal{N}(0, 1)$. See also Eq (2.2).

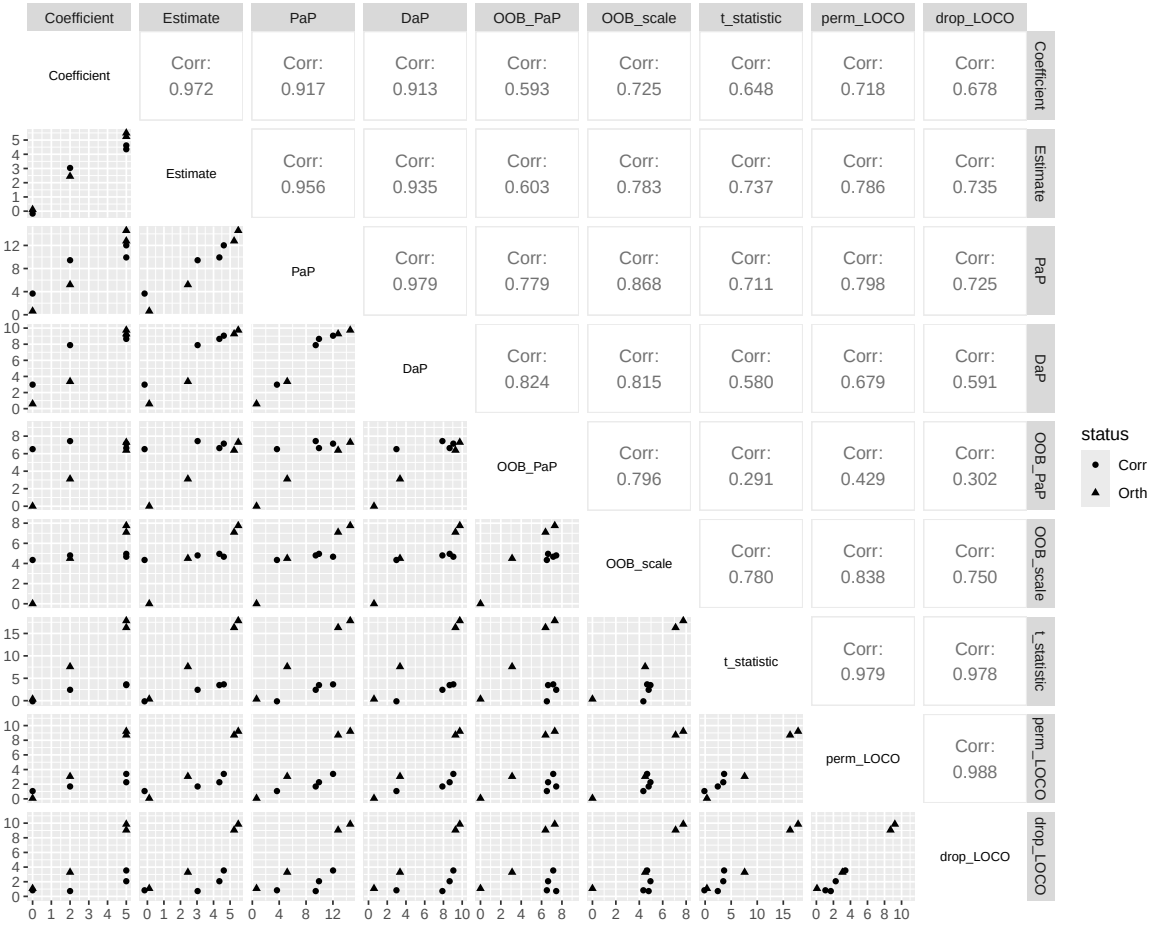

Figure 6. Comparative plots of importance metrics: regression model estimates and t-statistics and PaP and LOCO methods performed on a random forest model. Plot symbols denote the status of a given variable: whether it was part of the correlated or orthogonal group of features. The equation for the response is $y = 5Cor_1 + 5Cor_2 + 2Cor_3 + 0Cor_4 + 5v_5 + 5v_6 + 2v_7 + 0v_8 + \epsilon$, where $\epsilon \sim \mathcal{N}(0, 10)$. See also Eq (2.2).

References

1. K. Bladen, D. Richard Cutler, Assessing agreement between permutation and dropout variable importance methods for regression and random forest models, *Electron. Res. Arch.*, **32** (2024), 4495–4514. https://doi.org/10.3934/era.2024203