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COMMENTS AND CORRECTIONS

Corrections to "An Active Learning Methodology for Efficient Estimation of Expensive Noisy Black-Box Functions Using Gaussian Process Regression"

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In the above article [1], errors related to symbols, equation numbers, and demonstration of Algorithm 2 were spotted. The corrections had no influence on the results, discussion, or conclusion of the article.

In Section III D.1, Step 2.4 of Algorithm 1, it currently reads as "$\sigma_n^2 I$" where it should be corrected as "$\sigma_m^2 I$."

In Section III D.2, it currently reads as "Next, for each choice of the tuning parameter in λ_c, it uses (4) to select the most informative point from the unevaluated set (Step 2.1). Adding the selected point for each λ_c to the set of evaluated points, it then calculates the maximum variance of the remaining unevaluated points using (3) and stores it in vector P (Step 2.2). Finally, it selects the optimal tuning parameter λ_* which corresponds to the minimum of the maximum variances stored in P (Step 3)." It should read as "Next, for each choice of the tuning parameter in λ_c, it uses (5) to select the most informative point from the unevaluated set (Step 2.1). Adding the selected point for each λ_c to the set of evaluated points, it then calculates the expected reduction in the squared error averaged over the remaining unevaluated points using (4) and store it in vector P (Step 2.2). Finally, it selects the optimal tuning parameter λ_* which corresponds to the maximum of the values stored in P (Step 3)."

The Step 2.1 in Algorithm 2 currently reads as $x^* = argmax_{x_i \epsilon U}[\max[K_{(U-x_i,U-x_i)} - K_{(U-x_i,Z+x_i)}[\sigma_m^2 I + K_{(Z+x_i,Z+x_i)} + \lambda K_{(Z+x_i,X)} L K_{(X,Z+x_i)}]^{-1} \mathrm{x} K_{(Z+x_i,U-x_i)}]]$. It should read as $x^* = argmax_{x_i \epsilon U}[K_{x_i x_i} - K_{x_i Z}[\sigma_m^2 I + K_{ZZ} + \lambda K_{(ZX)} L K_{(XZ)}]^{-1} K_{Z x_i}]$.

In Table 2 response model 6.2, "π_{i+1}" should read as "πx_{i+1}."

REFERENCES

[1] R. Meka, A. Alaeddini, S. Oyama, and K. Langer, "An active learning methodology for efficient estimation of expensive noisy black-box functions using Gaussian process regression," *IEEE Access*, vol. 8, pp. 111460–111474, 2020, doi: 10.1109/ACCESS.2020.3002819.