

# Review of: "Interpreting the loss functions of Artificial neural networks in cancer research"

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**Potential competing interests:** No potential competing interests to declare.

This paper reviews the commonly used loss functions, particularly based on MSE and RMSE for regression and CE for classification. The authors provide the loss functions with a very high-level understanding, but some important properties of the loss functions are missing, such as the characteristics of Lipschitz continuity and robustness against noise inferences. Besides, the loss function of mean absolute error (MAE) is missing in the paper, which has been justified to perform better than MSE and RMSE in regression tasks [Qi, 2020]. However, this work does not discuss the MAE at all, which makes the work not state-of-the-art in terms of theoretical results.

Reference: Qi, J., Du, J., Siniscalchi, S.M., Ma, X. and Lee, C.H., 2020. On mean absolute error for deep neural network based vector-to-vector regression. *IEEE Signal Processing Letters*, 27, pp.1485-1489.