

# Review of: "The improved grasshopper optimization algorithm and its applications"

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1. The choice of attraction strength and attraction length scale comes from references, whether their changes will improve the performance of the algorithm. Are there better parameters? Is there a formula for better social relations. Check the <https://www.sciencedirect.com/science/article/pii/S0965997816305646>.
2. Several functional models are selected as the objective function in this work, and 30 runs are selected as comparison. If you increase or decrease this number of times, what is the result compared with other optimization methods? Will the algorithm eventually converge? Check <https://www.sciencedirect.com/science/article/pii/S0045782520307945> for more running times to compare the result.
3. The intelligent optimization algorithm is usually called the zero-order algorithm, that is, it only uses the information of the function itself. In this article, it is used in the prediction of BP neural network parameters. How fast (fast (usual): second order > first order > zero order) is the algorithm used to replace the training process? What caused the error of only the BPNN algorithm to be worse than the proposed algorithm? Is it the limitation of the algorithm itself, such as gradient information, or other reasons. There are many discussion about the accuracy and speed of BPNN such as <https://www.sciencedirect.com/science/article/pii/S0143816614002607> and <https://www.sciencedirect.com/science/article/pii/S1568494612001032>.