

A COMPARATIVE STUDY OF BIO INSPIRED OPTIMIZATION ALGORITHMS FOR MODELING THE SPREAD OF THE DISEASE

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SUMMARY

We provide, by means of this article a resolution of an Initial Value Problem (IVP) used to measure the spread of the disease in the medical field, which is the logistic model, using three well-known Metaheuristic Algorithms (MAs), namely Salp Swarm Algorithm (SSA), Firefly Algorithm (FA), and Genetic Algorithm (GA). By using a specific example, the comparison of various MAs' results in terms solution effectiveness reveals that SSA produces a satisfactory level of precision in the approximation of the solution.

Keywords and phrases: Salp Swarm Algorithm (SSA), Firefly Algorithm (FA), Genetic Algorithm (GA), Initial Value Problem (IVP), Metaheuristics.

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