

DE for global optimization

Kitayama et al. (2011) use DE for structure optimization.

Questions

1. Explain and classify DE. Compare it to at least two other metaheuristic algorithms. Explain the advantages and shortcomings of each.
2. Explain the structural optimization problem and how DE can be used to solve it. Implement DE and compare it on an artificial example to another method.

References

Kitayama, S., Arakawa, M., and Yamazaki, K. (2011). Differential evolution as the global optimization technique and its application to structural optimization. *Applied Soft Computing*, 11:3792–3803.