SIGEVO Summer School 2017 Challenge

Challenge posed by Dr Jurgen Branke

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What is the problem with a simple linear combination (weighted sum) of the objectives in multi-objective optimisation?

Response

Some problems with the weighted sum approach are:

- This would not capture points on non-convex Pareto fronts. It is good for convex fronts.
- Very different set of weight vectors can represent the same optimal solution. Affects interpretability.