

Accepted Manuscript

Linear programming-based directed local search for expensive multi-objective optimization problems: application to drinking water production plants

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PII: S0377-2217(17)30279-5
DOI: [10.1016/j.ejor.2017.03.057](https://doi.org/10.1016/j.ejor.2017.03.057)
Reference: EOR 14341



To appear in: *European Journal of Operational Research*

Received date: 12 October 2015
Revised date: 21 March 2017
Accepted date: 23 March 2017

Please cite this article as: F. Capitanescu, A. Marvuglia, E. Benetto, A. Ahmadi, L. Tiruta-Barna, Linear programming-based directed local search for expensive multi-objective optimization problems: application to drinking water production plants, *European Journal of Operational Research* (2017), doi: [10.1016/j.ejor.2017.03.057](https://doi.org/10.1016/j.ejor.2017.03.057)

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Highlights

- We propose a new local search method for expensive multiobjective optimization problems.
- The method relies on first derivatives approximation and linear programming.
- The method aims at steering the search along a desired direction in the objectives space.
- The method is applied to life cycle assessment-based optimization of water plants.
- The method clearly outperforms the directed local search approach.

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