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Optimizing Relocation Operations in Electric Car-Sharing

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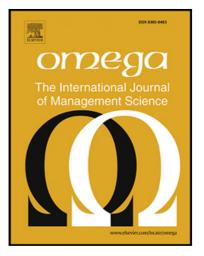
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Highlights

- We introduce a car relocation problem for a station-based electric car-sharing system in which a set of relocators can move the electric vehicles to stations in which they are required by users.
- The problem is modeled as an Integer programming model that considers battery consumption and recharge and allows for the solution of problems of realistic size.
- Large-scale problems are solved through model-based heuristics which produce accurate solutions in short computing times.
- Sensitivity analysis to problem structure and parameters provides useful insights on the problem.

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