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A methodology for the multi-objective shape optimization of thin noise barriers

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**Highlights**

- Numerical procedure for the multi-objective optimization of thin noise barriers.
- Applies the coupled use of NSGA-II and Dual Boundary Elements formulation.
- Maximization of noise efficiency and minimization of material used in the barrier.
- Initial population with random individuals and with the best single-objective solution.
- More effective solutions than the 3m vertical screen but with similar erection costs.

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