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Minimization of Inhomogeneous Biharmonic Eigenvalue Problems

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Highlights

- Minimization of the first eigenvalue of biharmonic equations is studied.
- The optimal bang-bang coefficient function is found via a rearrangement algorithm.
- The bifurcation of local optimizers is investigated via an asymptotic analysis.
- Numerical simulations on various domains show different optimal scenarios.
- A symmetric breaking behavior is also observed numerically on annular domains.

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