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On the Fokas method for the solution of elliptic problems in both convex and non-convex polygonal domains

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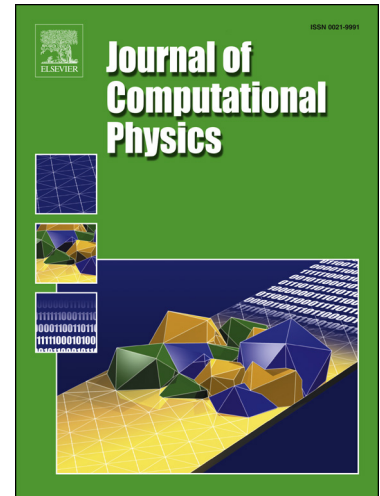
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## Highlights

- ‘Virtual sides’ allow the study of non-convex domains and interface problems.
- ‘Singularity functions’ greatly improve accuracy and rate of convergence. This is also compared against standard methods in the literature.
- Calculations of solutions throughout domain interiors are discussed.
- Choice of collocation points and implementation parameters are discussed in detail.
- Highly simplified Matlab code for the algorithm is given.

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