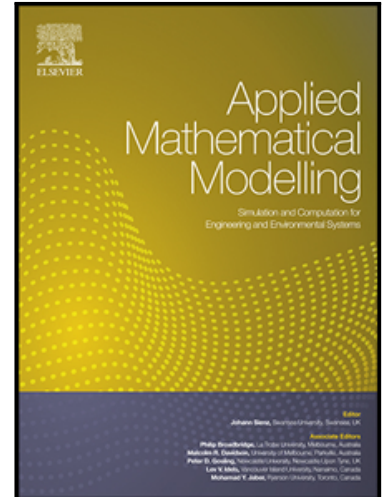


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Unstructured mesh finite difference/finite element method for the 2D time-space Riesz fractional diffusion equation on irregular convex domains

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Highlights

- Establish and prove some new definitions and lemmas of fractional derivative space on convex domains;
- An unstructured mesh finite element method is presented;
- The stability and convergence of the method are discussed on different irregular convex domains;
- Extend the theory and develop a computational model for the case of a multiply-connected domain;
- Apply to solve the coupled 2D fractional Bloch-Torrey equation on human brain-like domains.

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