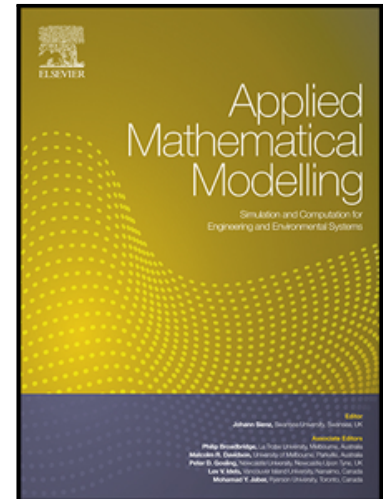


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Numerical inversion of the fractional derivative index and surface thermal flux for an anomalous heat conduction model in a multi-layer medium

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Highlights

- Anomalous thermal diffusion with fractional boundary in layered medium was studied.
- The balance method was utilized to give an efficient finite difference scheme.
- The fractional index and boundary flux were simultaneously identified.
- The L-M algorithm incorporating Armijo rule and scaling technique was applied.
- Numerical simulation with real experimental data was carried out.

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