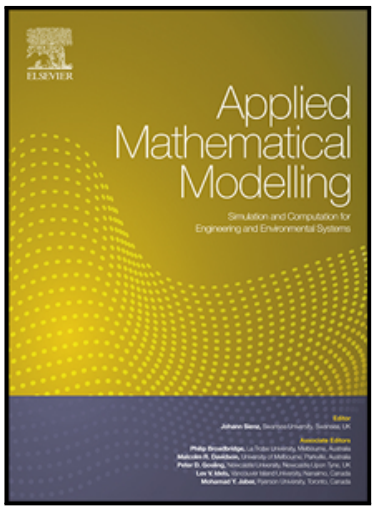

Two-component aerosol dynamic simulation using differentially weighted operator splitting Monte Carlo method

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Highlights:

- A multi-component Monte Carlo (MC) method is developed for simulating aerosol dynamics.
- Particle volume density and bivariate compositional distributions are obtained.
- The inclusion of more than one component does not significantly render the algorithm more complex.
- The study results are verified against a traditional sectional method (SM).
- The newly developed multi-component MC method is more computationally efficient than SM for two-component aerosol systems.