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Mechanical modeling of collective cell migration: An agent-based and continuum material approach

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***Highlights (for review)**

- We simulate epithelial layer mechanics combining a discrete agent-based model and a continuum material model.
- We use a hybrid representation of individual cells as particles and polygons.
- We model an epithelial layer as a continuum medium with different domains.
- We simulate two common examples of cell collective migration: durotaxis and gap closure.