## (Active) vertex model

Yann-Edwin Keta (Dated: 17/11/2023, 17:41)

## I. MESH

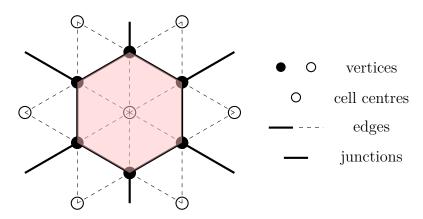


FIG. 1. Schematic of a cell (highlighted in pink) in the vertex model. A cell centre is enclosed by cell corners (or vertices). These are linked between themselves by junctions. The ensemble of the vertices and the edges that link them constitutes the geometric mesh. The specification of the cell centres and the junctions between non-cell-centres defines the physical mesh.

We will assume that cells are convex so that the mesh is planar, and that no edge joins two cell centres.

## II. CELL POTENTIAL ENERGY

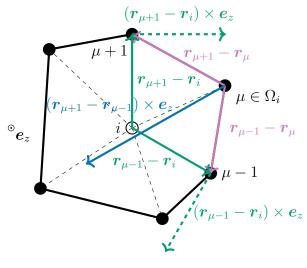


FIG. 2.

## III. HALF-EDGE PROCEDURE

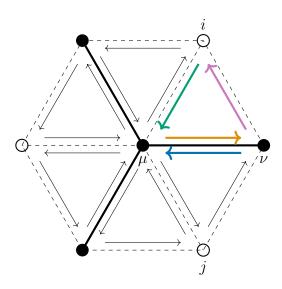


FIG. 3.

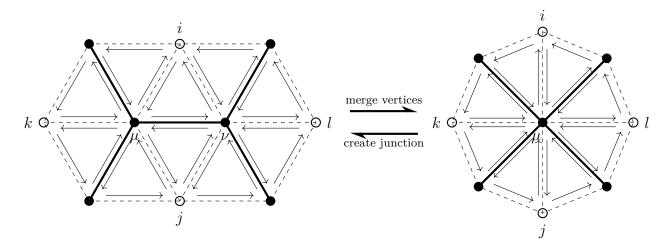


FIG. 4.