

Alternative modelling approaches

cellular automata models - hydrodynamic applications

- Rule based deterministic model
- Each cell evolves through time according to very simple rules based on contents of neighbouring cells

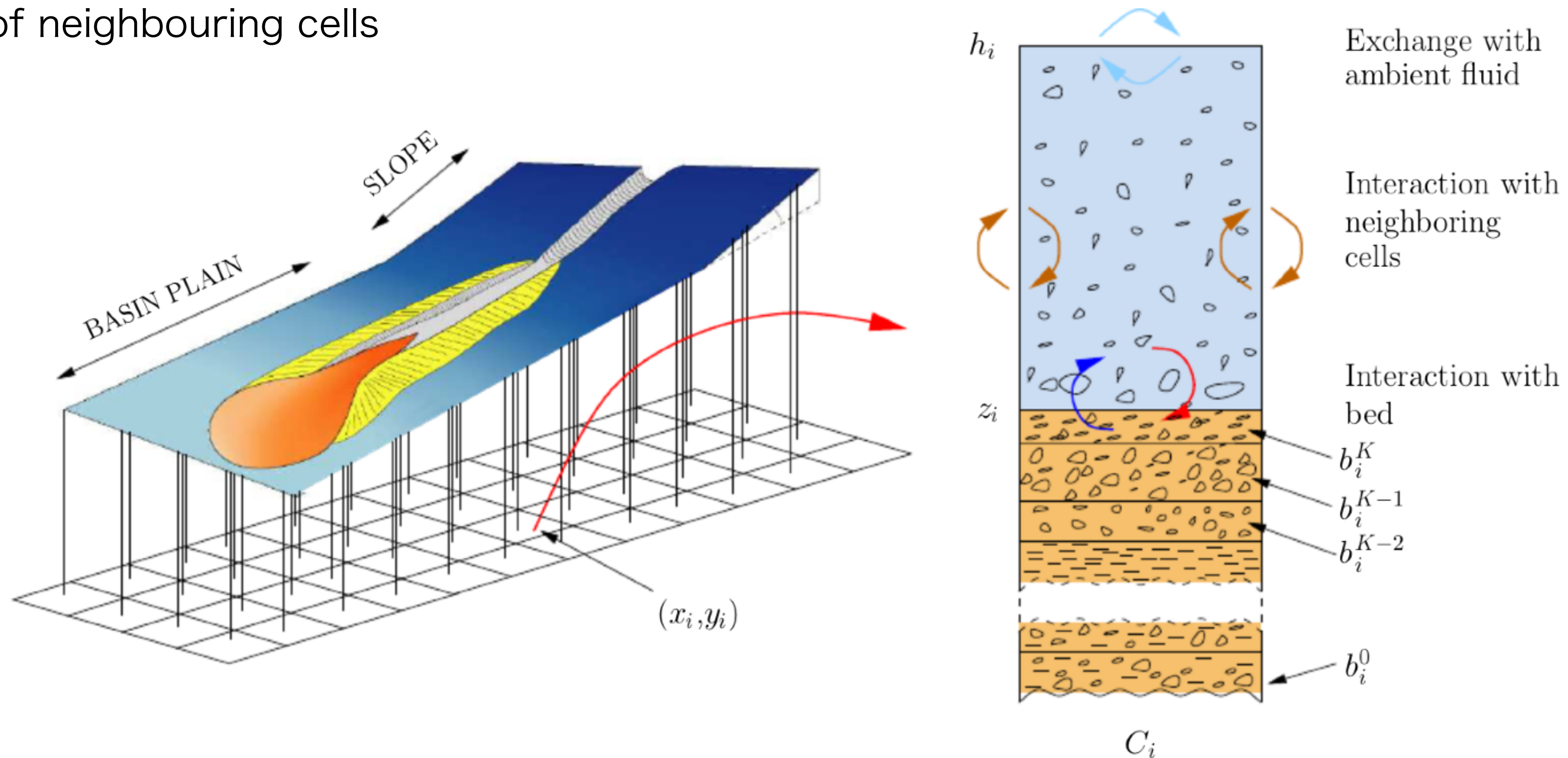
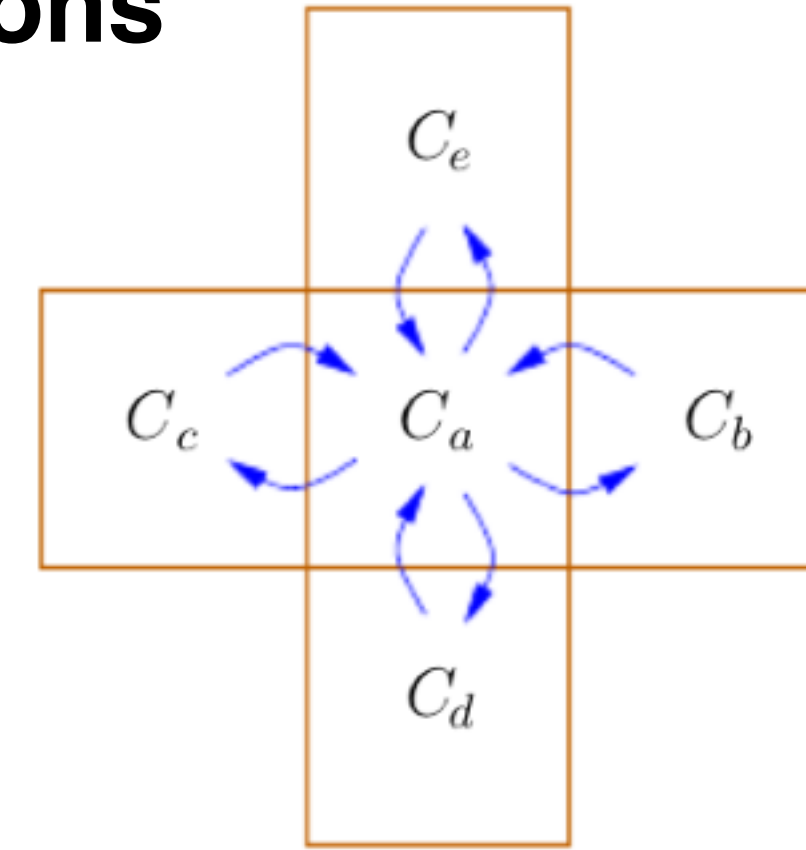


FIG. 1 – Discretization domain and rules applied to each cell.

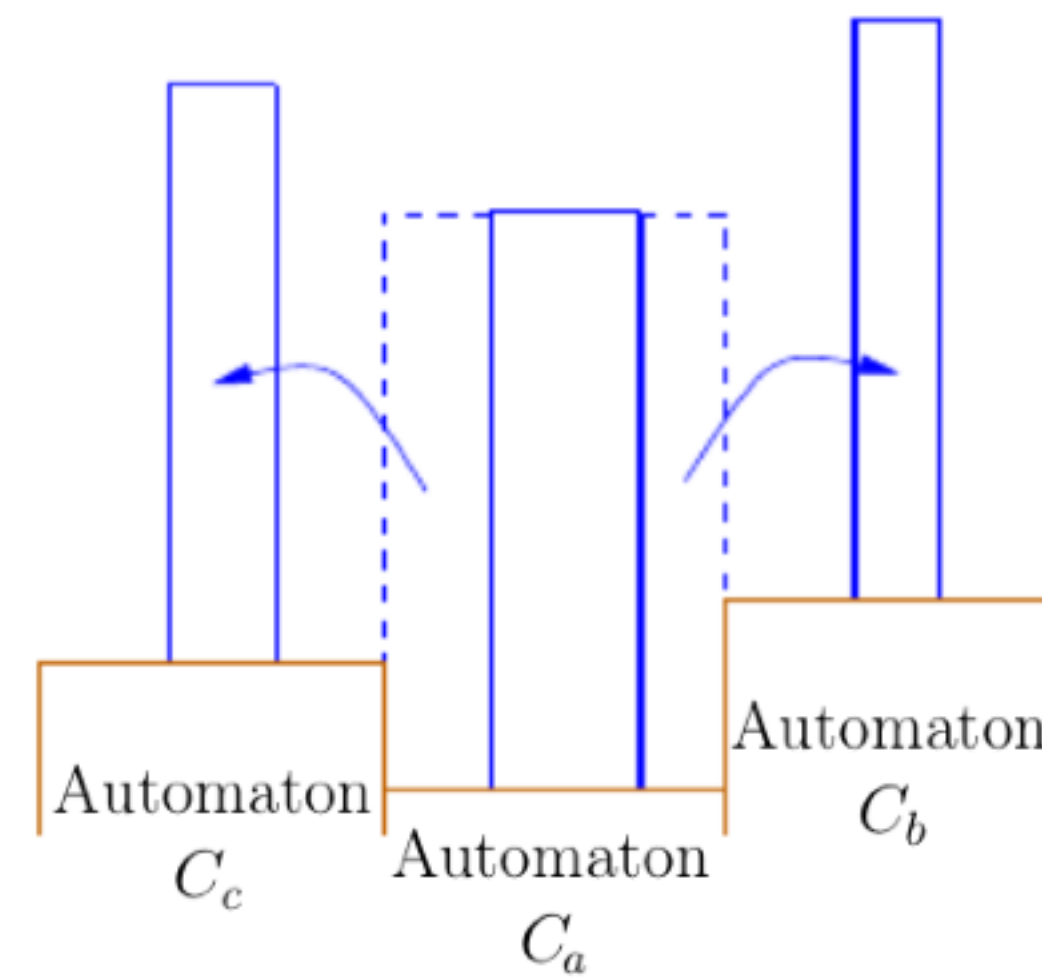
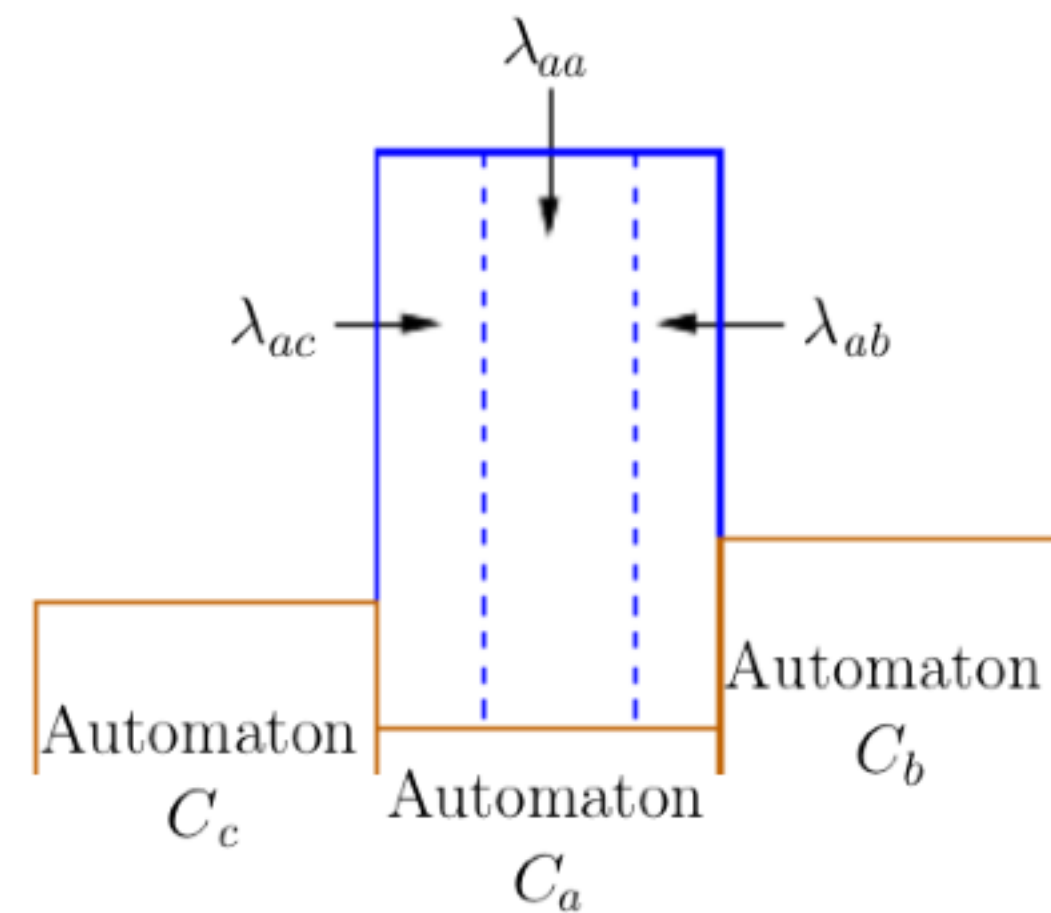
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Neighboring cells transfer



Collapse of the transferred column

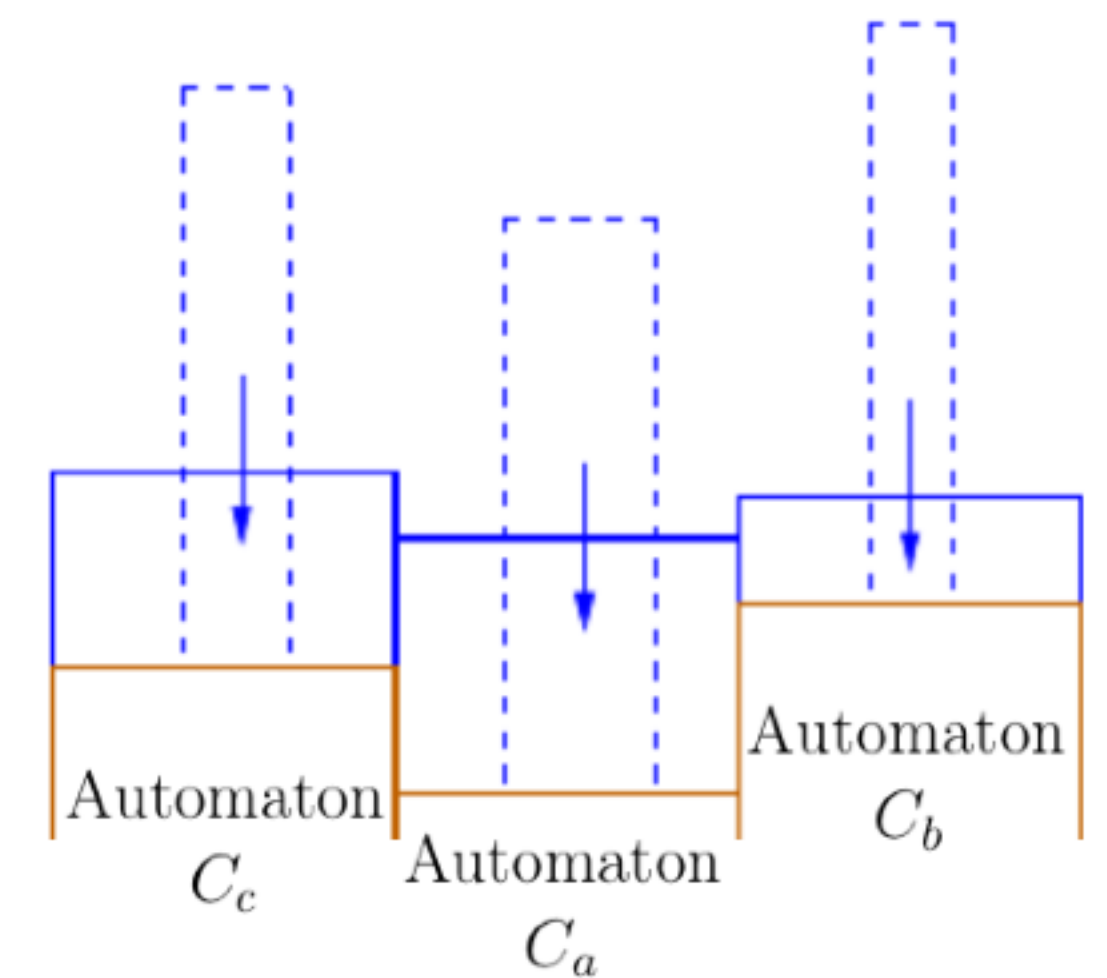


FIG. 2 – Matter and energy exchange between neighbors. Distribution of λ_{ij} that minimizes the work of gravity.