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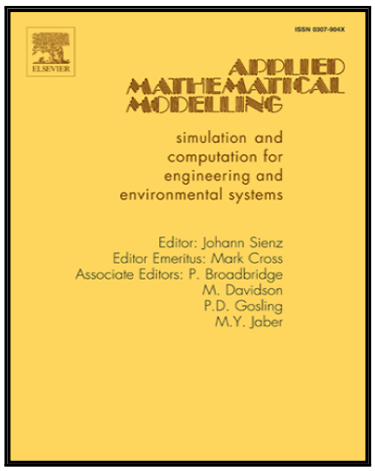

Explicit calculation of natural aeration using a Volume-of-Fluid model

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Highlights

- We included an extra term to a VOF model to detect the bubble formation at interface.
- Model is independent of calibrating factors by renewing the formula for surface wave's amplitude.
- We numerically applied the model to two canonical cases.
- Mesh refinement was shown significantly importance to free-surface detection.
- Bubble formations were found on the intersection of the jet with the pool.

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