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An artificial neural network as a troubled-cell indicator

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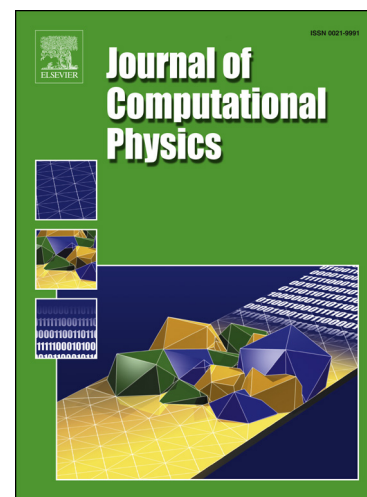
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## Highlights

- Design of a multilayer perceptron serving as a troubled-cell indicator.
- The proposed indicator is free of problem-dependent parameters.
- Correct classification of cells with smooth extrema.
- Testing with scalar and systems of conservation laws in one-dimension.
- Comparison with minmod-type TVB limiter.

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