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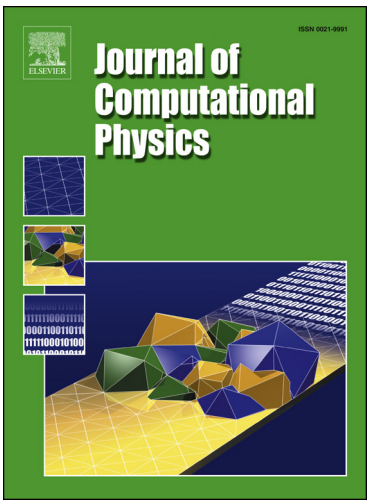

A Finite-Volume approach for compressible single- and two-phase flows in flexible pipelines with fluid-structure interaction

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Highlights

- A Finite-Volume method for compressible flows in flexible pipelines is presented.
- A Finite-Volume treatment of the junction coupling of several pipes is also tackled.
- ALE extension of the method is coupled with beam finite elements for FSI.
- Assessment on problems involving changes of area, shock waves, networks is performed.
- Good agreement with experiments is obtained for a FSI application.