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Modeling of Leaks Effects on Transient Dispersed Bubbly Flow

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Abstract : Leakage problem of two-component fluids flow is modeled for a transient one-dimensional homogeneous bubbly flow and developed by taking into account the effect of a leak located at the middle point of the pipeline. The corresponding three conservation equations are numerically resolved by an improved characteristic method. The obtained results are explained and commented in terms of physical impact on the flow parameters.

Keywords : fluid transients, pipelines leaks, method of characteristics, leakage problem
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