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Unified adaptive Variational MultiScale method for two phase compressible-incompressible flows

E. Hachem, M. Khalloufi, J. Bruchon, R. Valette, Y. Mesri

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Ecole des Mines de Paris
CEMEF, Centre for Material Forming
1, rue Claude Daunesse
Sophia Antipolis, 06904
France

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Highlights for: "Unified adaptive Variational MultiScale method for two phase compressible-incompressible flows"

- A two-fluid flow finite element stabilized formulation for compressible-incompressible fluids is presented.
- A unified formulation is implemented using an appropriate constitutive model and a level set method is used to capture the interface
- Edge based error estimator with multi-criteria adaptation is adopted to deal with discontinuities at the interfaces.
- Stability and accuracy properties are achieved on anisotropic meshes with highly stretched elements
- The formulation is applied on bubble dynamics: shrinking, compressing and rising.

Thank you considering our work.

Sincerely yours,

Elie Hachem
Head of the CFL research group
<http://www.cemef.mines-paristech.fr/staff/elie-hachem>

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