Macroscopic dynamic capillary pressure for two-phase flow in porous media

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Résumé

A closed upscaled predictive equation for the macroscopic pressure difference (called macroscopic dynamic capillary pressure) for two phase flow in porous media is derived. It highlights the role of the different sources (pressure gradient and body force in each phase and interfacial effects) and it validated by direct numerical simulations in a simple configuration.

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