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Investigation of bubble-bubble interaction effect during the collapse of multi-bubble system¹ XUEMING SHAO, LINGXIN ZHANG, WENFENG WANG, Department of Mechanics, Zhejiang University — Bubble collapse is not only an important subject among bubble dynamics, but also a key consequence of cavitation. It has been demonstrated that the structural damage is associated with the rapid change in flow fields during bubble collapse. How to model and simulate the behavior of the bubble collapse is now of great interest. In the present study, both theoretical analysis and a direct numerical simulation on the basis of VOF are performed to investigate the collapses of single bubble and bubble cluster. The effect of bubble-bubble interaction on the collapse of multi-bubble system is presented.

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