

Abstract Submitted
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Numerical simulations of vibrating sessile drop¹ LYES KA-HOUADJI, Imperial College London, JALEL CHERGUI, DAMIR JURIC, LIMSI, CNRS, France, SEUNGWON SHIN, Hongik University, Republic of Korea, RICHARD CRASTER, OMAR MATAR, Imperial College London — A vibrated drop constitutes a very rich physical system, blending both interfacial and volume phenomena. A remarkable experimental study was performed by M. Costalonga (PhD. Universit Paris Diderot, 2015) highlighting sessile drop motion subject to horizontal, vertical and oblique vibration. Several intriguing phenomena are observed such as drop walking and rapid droplet ejection. We perform three-dimensional direct numerical simulations of vibrating sessile drops where the phenomena described above are computed using the massively parallel multiphase code BLUE.

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