

Cooperative standing-horizontal-standing reentrant transition for numerous solid particles under external vibration

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Supplementary videos

The Supplementary materials include three video files

Video S1.avi: This video shows an experimental observation on the collective motion at $\Gamma = 3.16$.

Video S2.avi: This video shows an experimental observation on the collective motion at $\Gamma = 3.57$.

Video S3.avi: This video shows an experimental observation on the generation of travelling wave accompanied by the reentrant transition of standing-horizontal-standing.