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FARADAY UNCAGED

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The advancement in computing resources in the 21st century has led to the possibility of detailed study of complex Faraday wave patterns. We present the first numerical simulations of standing waves generated by two-frequency oscillation of 10 cm² silicone fluid layer of depth 5.5 mm.

Two-frequency parametric vibrations excite two competing unstable wave modes. These wave modes superpose to form quasicrystalline structures. Our DNS results will allow us to analyse the superposition of the competing wave modes and the role of viscous dissipation.

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