

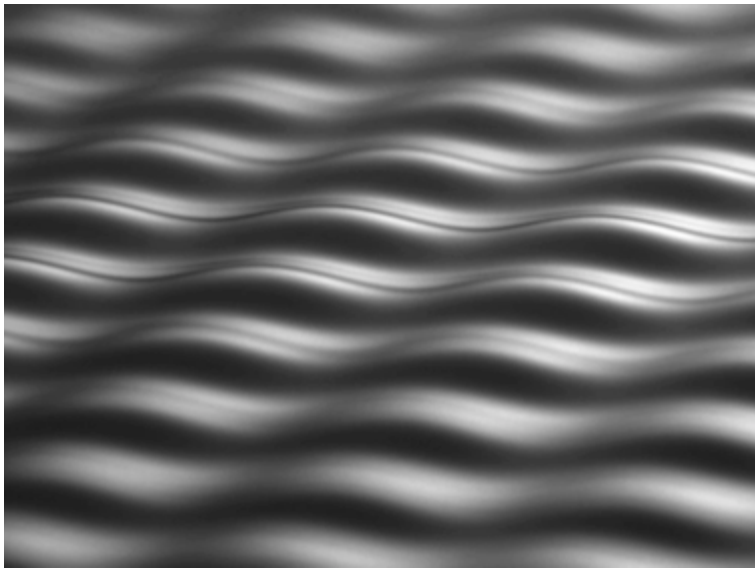


Faraday wave lattice as an elastic metamaterial

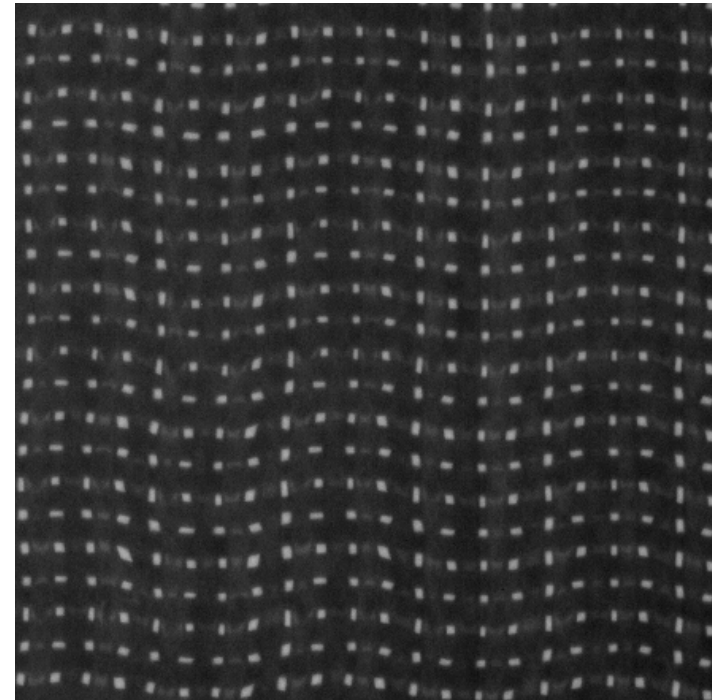


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Faraday instability (1831)



5 mm

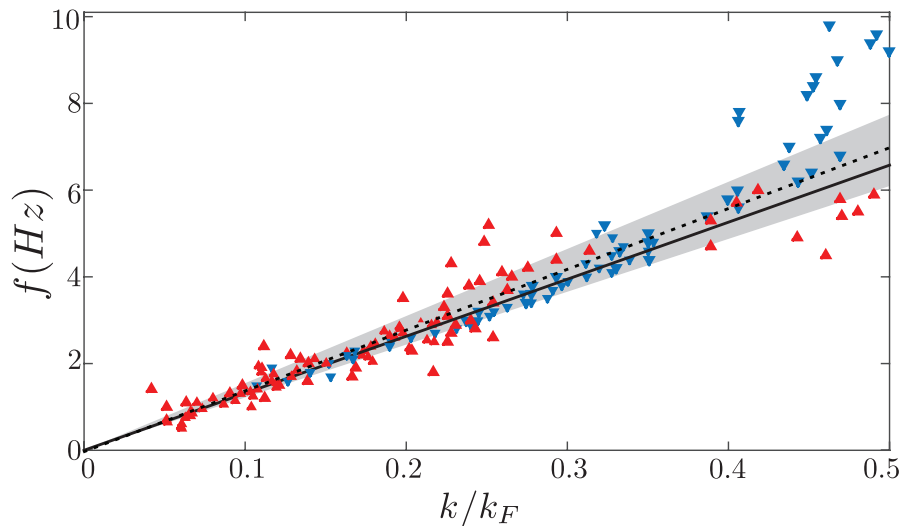
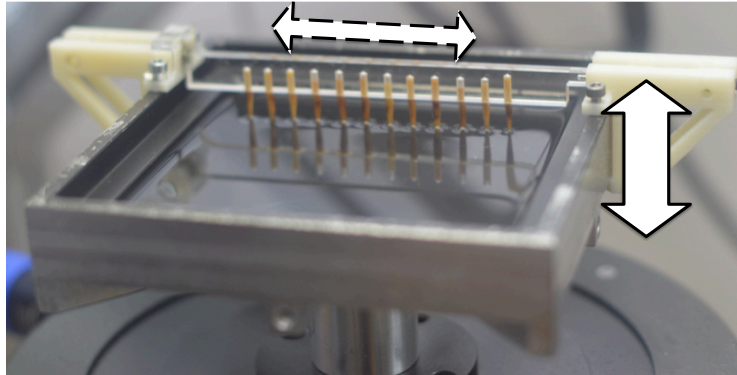


1 cm

$f_0 = 72$ Hz
 $a \sim 2$ g

Forced vibrations

$f = 1 \text{ à } 10 \text{ Hz}$



Apparent 2D elasticity : shear modulus μ_S

A **Faraday wave lattice** in a newtonian fluid is a mechanical **metamaterial** with solid-like properties.

Domino *et al.* 2016 (submitted)