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## Poster: Three dimensional Faraday waves in double minimum hexagonal domain

Lyes Kahouadji, Nicolas Perinet, Laurette Tuckerman, Seungwon Shin, Jalel Chergui, Damir Juric, Omar Matar

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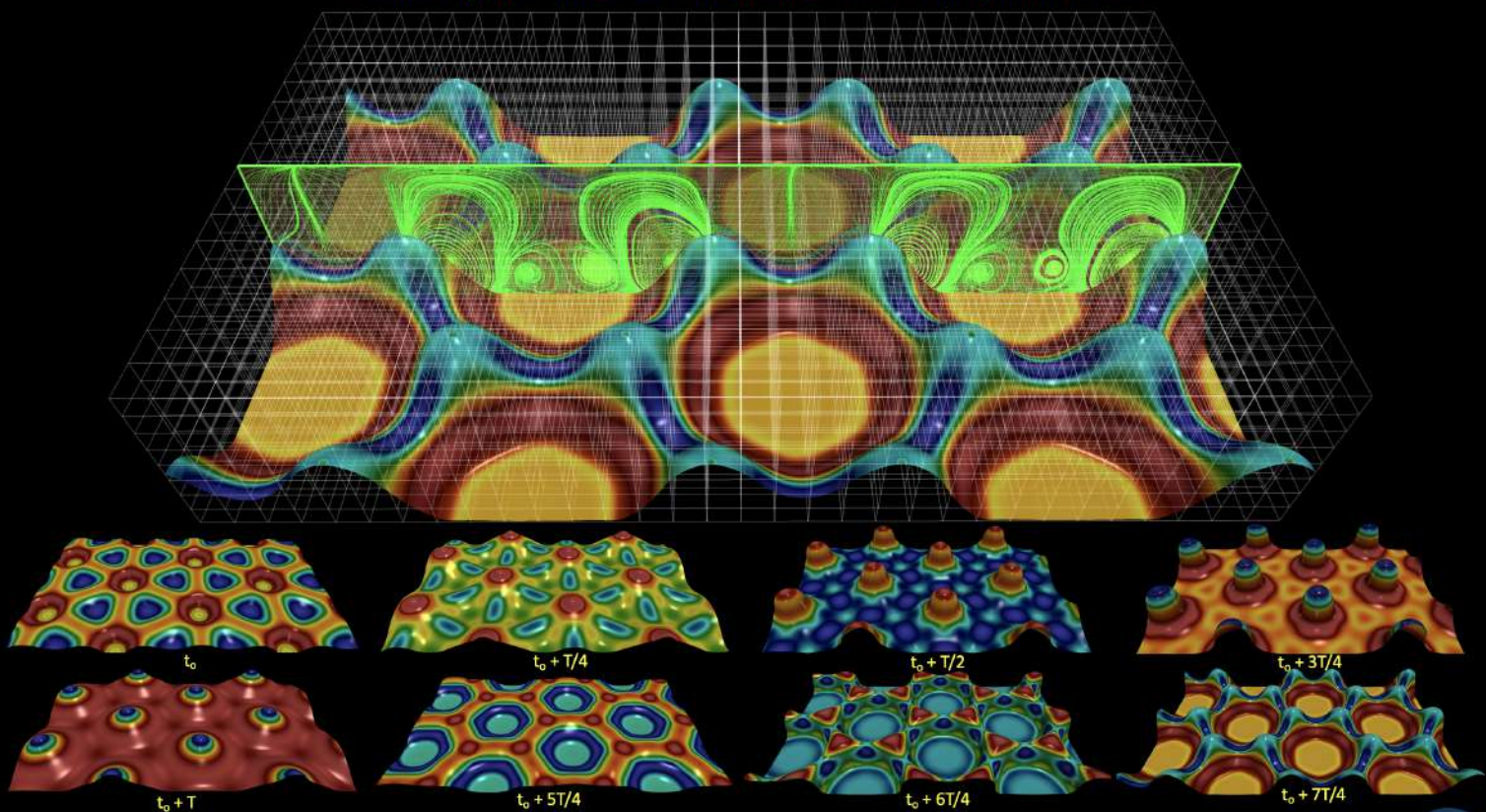
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# Three-dimensional Faraday waves in double minimum hexagonal domain

L. Kahouadji, N. Périnet, L. S. Tuckerman, S. Shin, J. Chergui and D. Juric



Parallel Direct Numerical Simulation of three-dimensional dynamical patterns of Faraday waves in a double minimum hexagonal domain. Forcing frequency 12 Hz and amplitude 3.875 g, height ratio 5.25, density ratio 0.7, kinematic viscosity ratio 4 and surface tension 0.035 N/m. The entire domain is decomposed into 4096 subdomains (32 x 16 x 8). 32 x 32 x 32 is the local resolution per subdomain. 1024 x 512 x 256 is the global resolution. This work was performed using high-performance computing resources provided by the Institut du Développement et des ressources en Informatique Scientifique (IDRIS) of the CNRS.

Reference:

- [1] N. Périnet, D. Juric and L. S. Tuckerman, Numerical simulation of Faraday waves, *J. Fluid Mech.* 635, 1-26 (2009).
- [2] N. Périnet, D. Juric and L. S. Tuckerman, Alternating hexagonal and striped patterns in Faraday surface waves, *Phys. Rev. Lett.* 109, 164501 (2012).

