

# Attractors for internal or inertial waves

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Motivated by experiments of physicists, in particular Thierry Dauxois (ENS-Lyon), we started this work with Laure Saint-Raymond.

Using a simplified linear model, we are able to give a precise mathematical status to these attractors. Using Mourre theory and some pseudo-differential calculus, we can show that such attractors exist generically in 2D.

[CdV] Spectral theory of pseudodifferential operators of degree 0 and an application to forced linear waves.

Anal. PDE 13, No. 5, 1521-1537 (2020).

[CdV & Laure Saint-Raymond] Attractors for two-dimensional waves with homogeneous Hamiltonians of degree 0.

Commun. Pure Appl. Math. 73, No. 2, 421-462 (2020).