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**Sharp dimension estimates of the attractor of the damped 2D Euler-Bardina equations.**  
(English) [Zbl 1479.35101](#)

Exner, Pavel (ed.) et al., Partial differential equations, spectral theory, and mathematical physics. The Ari Laptev anniversary volume. Berlin: European Mathematical Society (EMS). EMS Ser. Congr. Rep., 209-229 (2021).

Summary: We prove existence of the global attractor of the damped and driven 2D Euler-Bardina equations on the torus and give an explicit two-sided estimate of its dimension that is sharp as  $\alpha \rightarrow 0^+$ .

For the entire collection see [\[Zbl 1465.35005\]](#).

**MSC:**

[35B40](#) Asymptotic behavior of solutions to PDEs

[35B41](#) Attractors

[35B45](#) A priori estimates in context of PDEs

[35Q31](#) Euler equations

[37L30](#) Attractors and their dimensions, Lyapunov exponents for infinite-dimensional dissipative dynamical systems

Cited in **2** Documents

**Keywords:**

damped Euler-Bardina equations;  $\alpha$  models

**Full Text:** [DOI](#) [arXiv](#)

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