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# Finite determining modes for quasi-geostrophic equation

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## Abstract

We prove that there exists a finite wave number  $\Lambda(t)$  such that, on the global attractor of the quasi-geostrophic equation, if two solutions  $\theta_1$  and  $\theta_2$  coincide on the low frequency part  $(\theta_1)_{\leq \Lambda(t)} = (\theta_2)_{\leq \Lambda(t)}$ , then the two solutions are identical  $\theta_1(t) \equiv \theta_2(t)$ .

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