

1107-35-402

Theodore Tachim Medjo* (tachimt@fiu.edu), Department of Mathematics/Statistics, Florida International University, MM Campus, Miami, FL 33199. *Averaging of a multi-layer quasi-geostrophic equations with oscillating external forces.*

We consider a non-autonomous multi-layer quasi-geostrophic equations of the ocean with a singularly oscillating external force depending of a small parameter ϵ in $[0,1)$. Under suitable assumptions on the external force, we prove the boundness of the uniform global attractor. When the external force is small enough or the viscosity is large enough, we derive the rate of convergence of the attractors of the singular systems to the averaged system in term of the parameter ϵ . (Received January 19, 2015)