Applied Mathematics

McGill Applied Mathematics Seminar

Sep. 24, 2007, 2:35 pm Monday
At McGill, Burnside Hall 1205

"Exponential asymptotics for the primitive equations"

Djoko Wirosoetisno
Dept. of Mathematical Sciences
U. Durham

Coffee and refreshments will be served after the seminar

Abstract:

We show how Gevrey (exponential) regularity of the solution and a classical method can be used together to prove long-term and exponentially-accurate approximation results for a singular perturbation problem with a small parameter. The model considered is the viscous primitive equations of the ocean in the strong rotation limit, although the method is applicable to many more parabolic PDEs. This is joint work with M Petcu and R Temam.
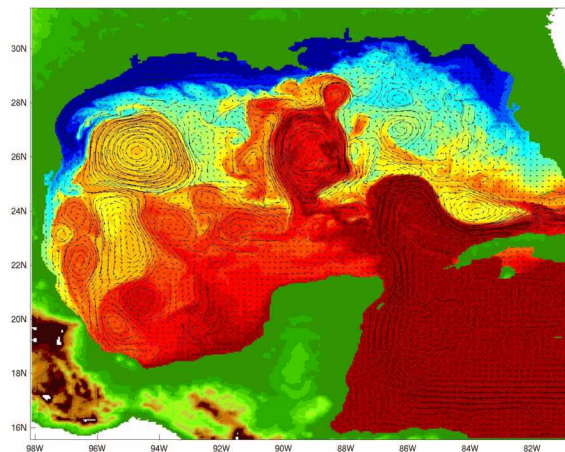
Primitive equation ocean model, Gulf of Mexico From
`www.coaps.fsu.edu/groups/oceanography/gom.php`