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**Animikh Biswas, Ciprian Foias and Adam Larios\*** (alarios@unl.edu), University of Nebraska-Lincoln, Department of Mathematics, 203 Avery Hall PO Box 880130, Lincoln, NE 68588. *Attractor for a coupled parabolic-hyperbolic system from ocean dynamics.*

The Boussinesq equations arise in the study of ocean flows. Recently, there has been much work on of the equations in the partial absence of dissipative terms, but certain restrictions on the assumptions resisted very sophisticated mathematics. I will discuss an approach which does not require these restrictions, and furthermore is done with more elementary techniques. Furthermore, the large-time behavior of a dissipative system can often be understood by studying its global attractor, which can contain deep information about its underlying structure. I will show that the notion of attractor can be extended to the Boussinesq system with only partial dissipation. We will see that this generalized attractor not only has a rich structure, but also encodes a wealth of turbulent phenomena in a single object. (Received January 30, 2016)