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**Animikh Biswas**, **Ciprian Foias** and **Adam Larios\*** (alarios@math.tamu.edu), Dept. of Mathematics, MS 3368, TAMU, College Station, TX 77801. *The Asymptotic Behavior of Semi-Dissipative Systems.*

The asymptotic dynamics of dissipative systems has been studied for many years. Some of the ideas from this study can be carried over to the setting of certain equations which occur naturally in fluid dynamics, but which are only semi-dissipative. This gives rise to a structure in the phase space that is extremely rich in terms of the variety of solutions it contains, and which has many connections with the statistical theory of turbulence. We will describe this structure and explore some of its connections with turbulence. (Received September 10, 2013)