1046-35-1005   **Joseph L. Shomberg*** (`jshomber@providence.edu`), Providence College, Department of Mathematics & Computer Science, 227 Howley Hall / Service Building, Providence, RI 02908.
Explicit Construction of a Robust Family of Compact Inertial Manifolds.

A construction of a robust family of compact inertial manifolds is presented. The result aims to complete an analysis of certain types of attracting sets for a class of dissipative infinite dimensional dynamical systems. Application to a hyperbolically relaxed Chaffee-Infante reaction diffusion equation is also discussed. (Received September 13, 2008)