CLIMATE MODEL ATTRACTORS: CHAOTICITY, REGULARITY AND SENSITIVITY.

V.Dymnikov (1) and A.Gritsoun (1)
(1) Institute of Numerical Mathematics Russian Academy of Sciences

In this report the theoretical results obtained for the climate models will be discussed (attractors, inertial manifolds, dimensions, Lyapunov exponents, pairing property). We will define the conditions of "quasi- regular behavior" of climate system: the conditions for witch the system behavior is subject to Kraichnan fluctuation-dissipation relations. The "quasiregularity" of the system allows us to solve the problem of the system sensitivity to the small perturbations of the external forcing. The applicability of the above approach to the analysis of the model and the real climate systems sensitivity will be studied.