



## Topics in Geophysical Fluid Dynamics: Atmospheric Dynamics, Dynamo Theory, and Climate Dynamics

By Ghil, M. / Childress, S.

Book Condition: New. Publisher/Verlag: Springer, Berlin | The vigorous stirring of a cup of tea gives rise, as we all know, to interesting fluid dynamical phenomena, some of which are very hard to explain. In this book our "cup of tea" contains the currents of the Earth's atmosphere, oceans, mantle, and fluid core. Our goal is to understand the basic physical processes which are most important in describing what we observe, directly or indirectly, in these complex systems. While in many respects our understanding is measured by the ability to predict, the focus here will be on relatively simple models which can aid our physical intuition by suggesting useful mathematical methods of investigation. These elementary models can be viewed as part of a hierarchy of models of increasing complexity, moving toward those which might be usefully predictive. The discussion in this book will deal primarily with the Earth. Interplanetary probes of Venus, Mars, Jupiter and Saturn have revealed many exciting phenomena which bear on geophysical fluid dynamics. They have also enabled us to see the effect of changing the values of certain parameters, such as gravity and rotation rate, on geophysical flows. On the other hand, satellite...



**READ ONLINE**  
[ 3.95 MB ]

### Reviews

*This pdf may be really worth a read, and superior to other. It generally does not price too much. Once you begin to read the book, it is extremely difficult to leave it before concluding.*

-- **Dylan Schaden**

*These kinds of ebook is the perfect publication offered. It is among the most incredible publication i have go through. You will not feel monotony at whenever you want of your time (that's what catalogues are for concerning if you check with me).*

-- **Delia Schoen**