

GEOPHYSICAL FLUID DYNAMICS

- Introduction to fluid and geophysical fluid dynamics: Basic concepts and primitive equations
- Geophysical fluid scaling and approximations.
- Quasi-geostrophic dynamics.
- Vorticity conservation in geophysical flows.
- Rossby waves - Barotropic and baroclinic instability.
- Turbulence in geophysical flows.
- The boundary layer dynamics.