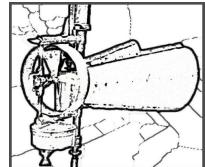


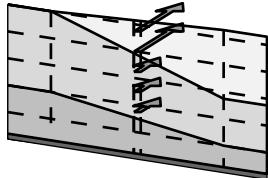
CHAPTER 1 Dynamics & Methods of Physical Oceanography

| | | |
|-----------------------|---------------------|------------------------|
| 1 General Circulation | Time & Space Scales | Governing Eqs. |
| 2 Sensors | Models | Solving Governing Eqs. |
| 3 Platforms | Equation of State | Conserved Quantities |
| 4 Data Synthesis | | |
| 5 Global T & S | | |
| 6 Topography | | |



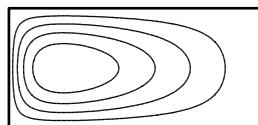
CHAPTER 2 Rotating & Shallow-Water Flow

| | | |
|---|----------------------|---------------------------|
| 1 | Coriolis | Geostrophy & Ekman |
| 2 | Hydrostat Geostrophy | Geos Example |
| 3 | Ekman | Horizontal SF & Vorticity |
| 4 | Div, Vort, & SF | Horizontal Div & Beta |
| 5 | Shallow Water & PV. | Shallow Water Eqs. |
| 6 | | Shallow Water Pot. Vort. |



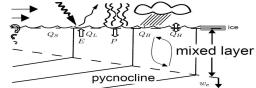
CHAPTER 3 Two-Dimensional Horizontal Circulation

| | | |
|-------------------------|----------------------|-------------------|
| 1 Wind Stress | Uniform-Density | Scale Analysis |
| 2 Gyres | Vorticity of Gyres | Sverdrup Failure |
| 3 WBCs | Vorticity of WBC's | WBCs |
| 4 Vertically Integrated | Sverdrup | Recirculation |
| 5 | Sverdrup Limitations | Integral Balances |



CHAPTER 4 Surface & Mixed Layer Properties

| | | |
|----------------------|----------------|------------------------|
| 1 surface properties | Surface Fluxes | Restoring SST & S Flux |
| 2 ML Structure | ML evolution | Freshwater Flux |
| 3 | | 1D ML Model |



CHAPTER 5 Depth-Dependent Geostrophic Gyre Circulation

| | | |
|-------------------------|----------------|--------------------|
| 1 Pycnocline Topography | Wind Paradox | Neglecting Mixing |
| 2 Depth Distribution | Ventilated | Elements of Models |
| 3 Density Distribution | Unventilated | Ventilated |
| 4 | ML Variations | Unventilated |
| 5 | Open Questions | |



CHAPTER 6 Upwelling, Overturning, and Equatorial Circulation

| | | |
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| 1 Equator & STC | EUC | Incomplete Theories |
| 2 Upwell, Downwell | 3D Uniform Density | EUC scaling |
| 3 Eastern Boundary | STC in Models | Meridional SF |
| 4 | Gyre + Cell | Layer Models |
| 5 | | Gyre with STC |

