SIO 220 - Observations of Large Scale Ocean Circulation
2015 Schedule and topics

A. General Introduction

1. Discussion of objectives, schedule, and example topic (31 Mar)
2. A brief history of general circulation studies (2 Apr)
3. The level of no motion problem (2 Apr)
4. Data visualization: Gridded Argo data (7 Apr)

B. Subtropics

1. Overview of subtropical gyres (7 April)
2. Florida Current transport (9 Apr)
3. Western boundary current "tight recirculation gyres" (9 Apr)
4. The East Australian Current (14 Apr)
5. Subtropical Mode Waters (14 Apr)
6. The Southern Hemisphere Super-Gyre (16 April)
7. The Agulhas Current (21 Apr)
8. The Leeuwin Current (21 Apr)
9. Ekman transport and the Ekman spiral (23 April)
10. Subtropical gyre interiors - Sverdrup Transport (28 April)
11. Deep Western Boundary Current of the North Atlantic (28 April)
12. North Atlantic heat transport (30 April)
13. North Pacific heat transport (30 April)

----------No class May 5,7----------

14. Time variability of the Atlantic MOC (12 May)

C. Tropics

1. Overview of tropical circulation (12 May)
2. The Pacific Equatorial Undercurrent (14 May)
3. Interior sources of the equatorial Pacific thermocline (14 May)
4. Ocean circulation and evolution of El Niño (19 May)
5. Geostrophy near the Equator (19 May)
6. The Indonesian throughflow (21 May)

D. High latitudes: water formation and spreading

1. Deep transport from S. Pacific via Samoan Passage (21 May)
2. Antarctic Circumpolar Current (26 May)
3. Water mass formation in the Labrador Sea (28 May)

E. Global change

1. The Northeast Pacific "warm blob". (28 May)
2. Is the global cycle of (E-P) changing? (2 June)
3. Global ocean warming. (4 June)

Other: Flow through the Strait of Gibraltar, The South Equatorial Current Bifurcation, Formation and spreading of Antarctic Bottom Water, Antarctic Intermediate Water