

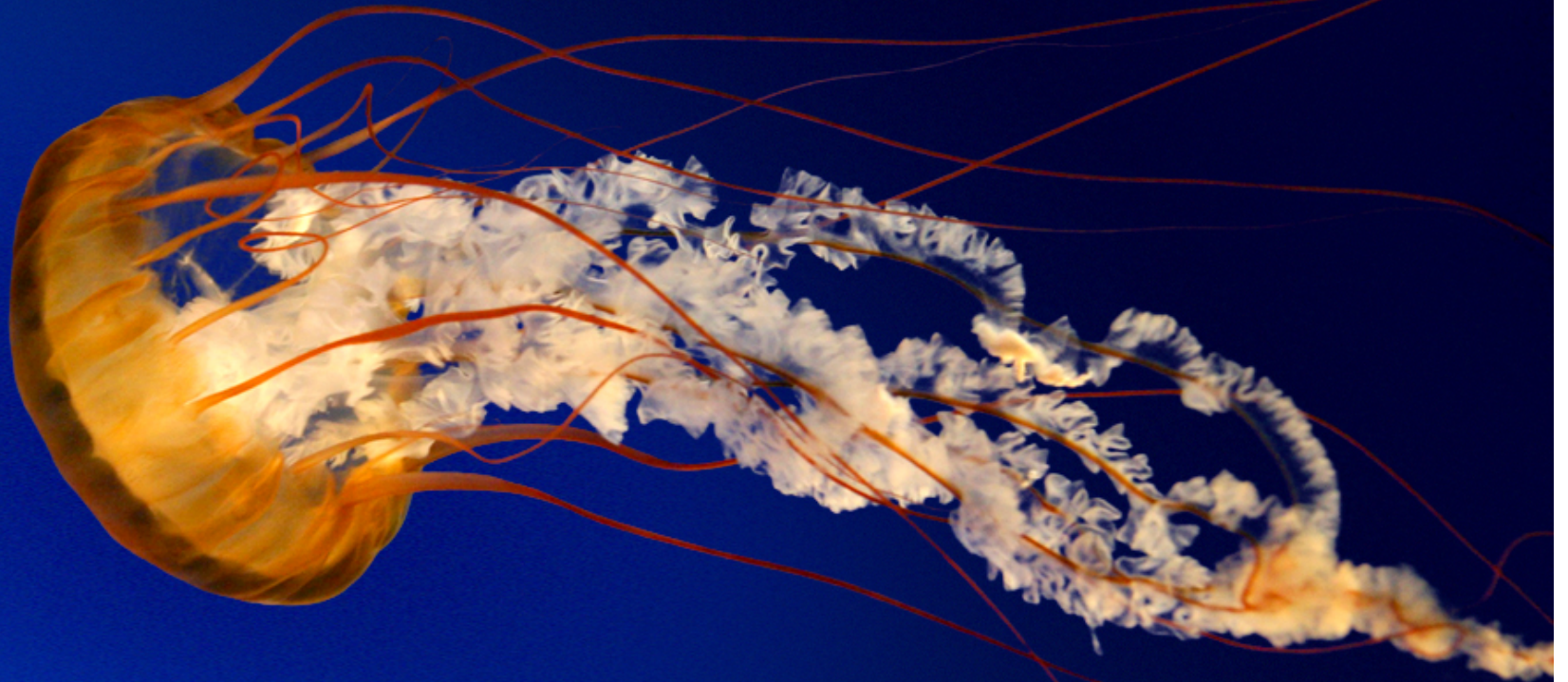
Oceanography

A photograph of a whale's tail breaching the ocean surface. The tail is dark and wet, splashing a large amount of water. The background shows a blue sky and distant mountains with snow.

May 28 2014

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What do you know about the ocean?



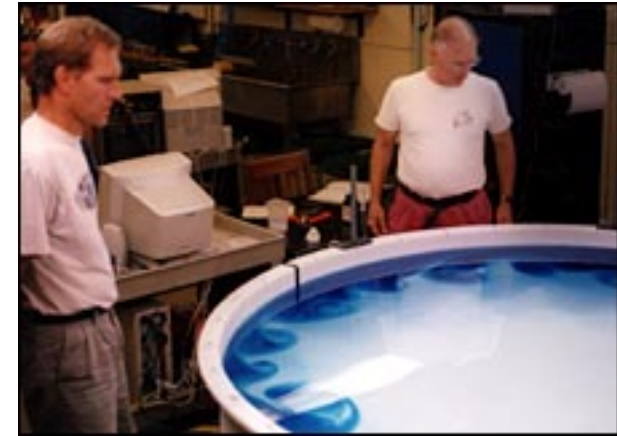
Fun Facts

- A jellyfish group is a smack.
- Waves come in parallel to the shore.
- The ocean contains 20 million tons of gold.
- The tallest land mountains would be underwater in the deepest ocean trench.
- The biggest animals eat the smallest animals.

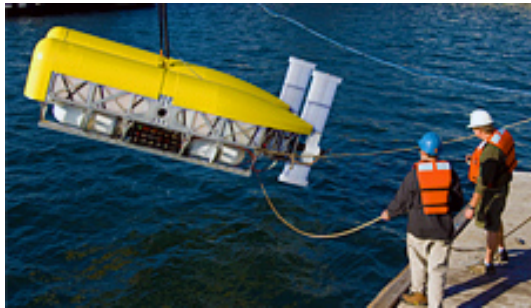
Oceanography is many things:



Biology



Physics



Engineering



Chemistry

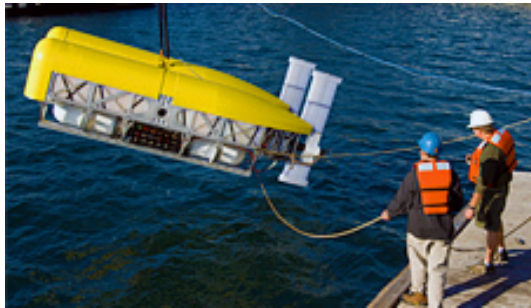
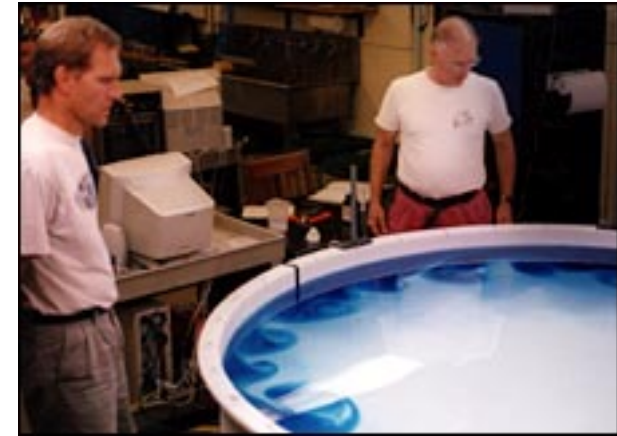


Geology

Oceanography in many places:



In labs at WHOI



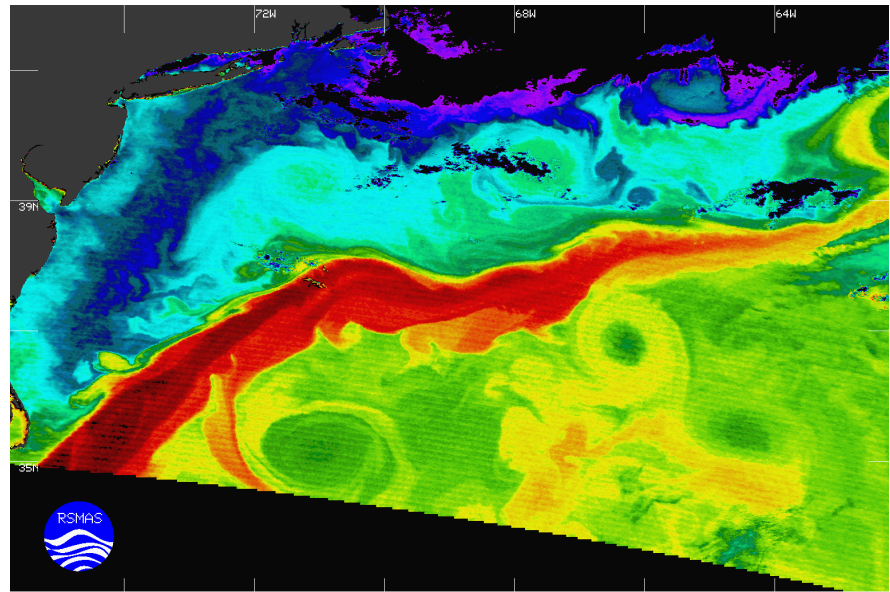
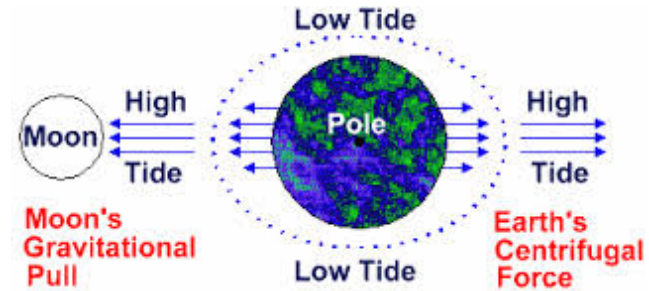
On ships at sea



On land

Physical Oceanography

- Tides
- Temperatures
- Currents
- Waves



SEA: Sea Education Association

I was on this ship for 2 weeks!

We took measurements and water samples.

We also sailed the ship.



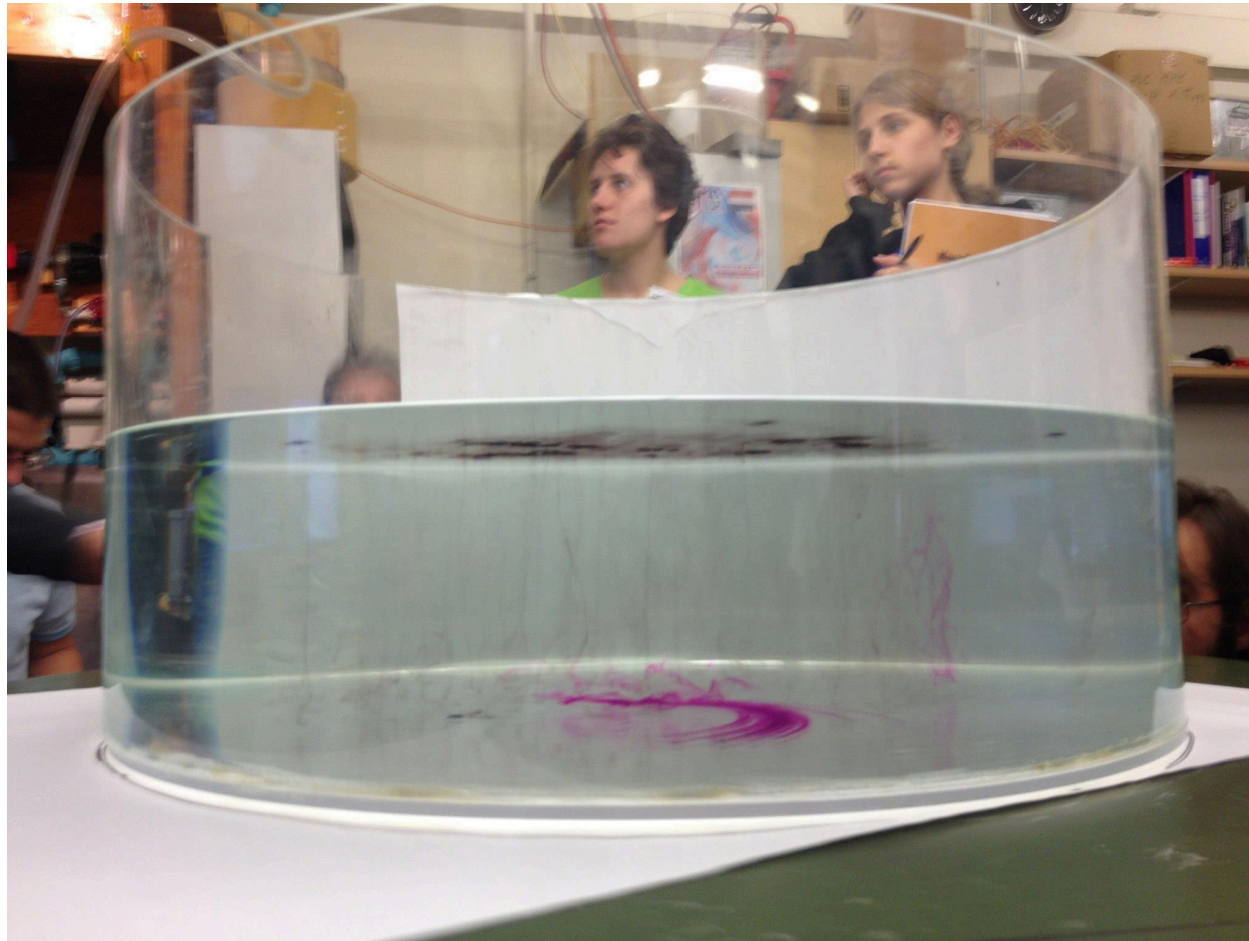
Class Field Work



Ocean Sciences Meeting: Hawaii

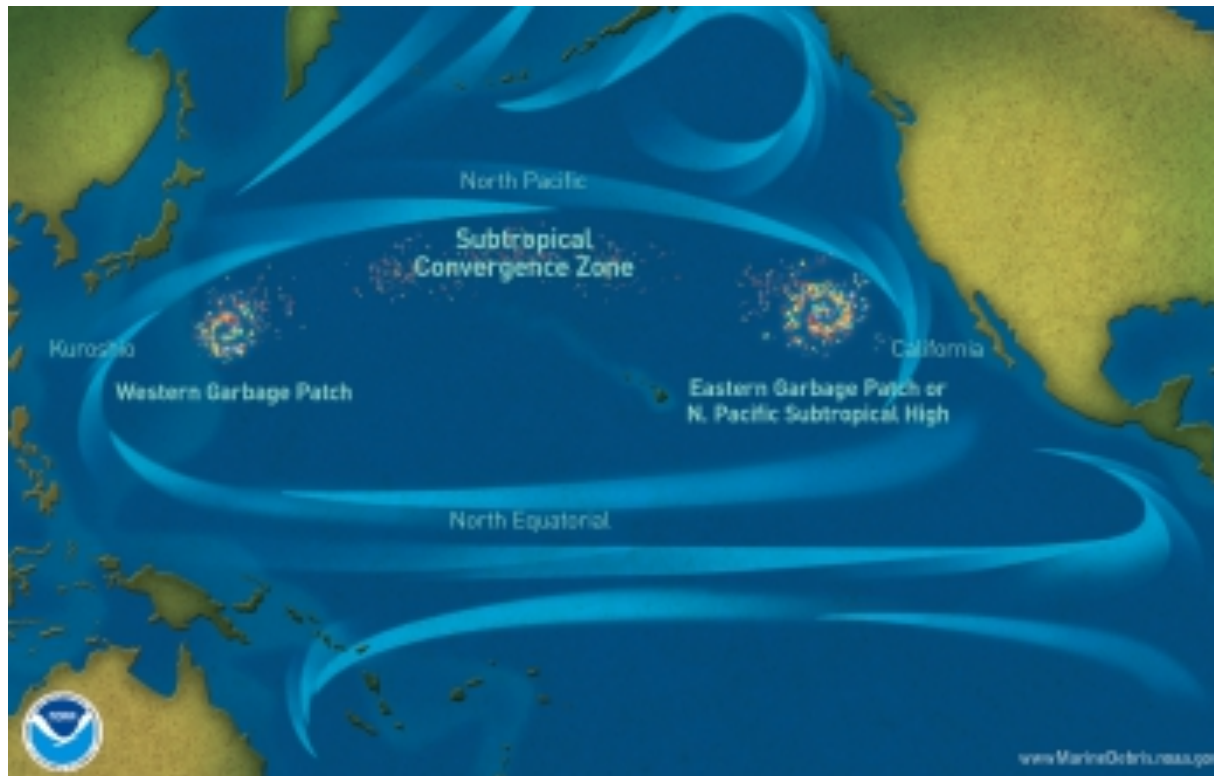


Class Lab Work



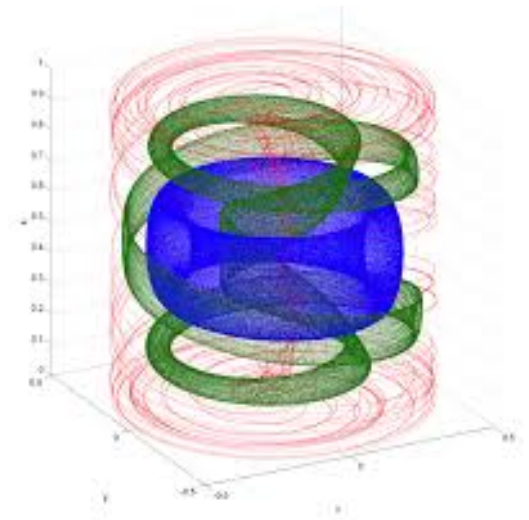
Lab Video: Garbage Patch

- <https://www.youtube.com/watch?v=yP6eG9iXmKc>



My Research

- Video: fluid stirring
https://www.youtube.com/watch?v=p08_KITKP50
- I try to understand how stirring happens in the ocean and what it means for phytoplankton
- Processes of 1-10km across



How did I get here? Highschool

- Took extra math and science classes
- Played sports



How did I get here? College

- Skidmore
- Majored in math and physics
- Did unpaid research one summer to get a paid research position the next

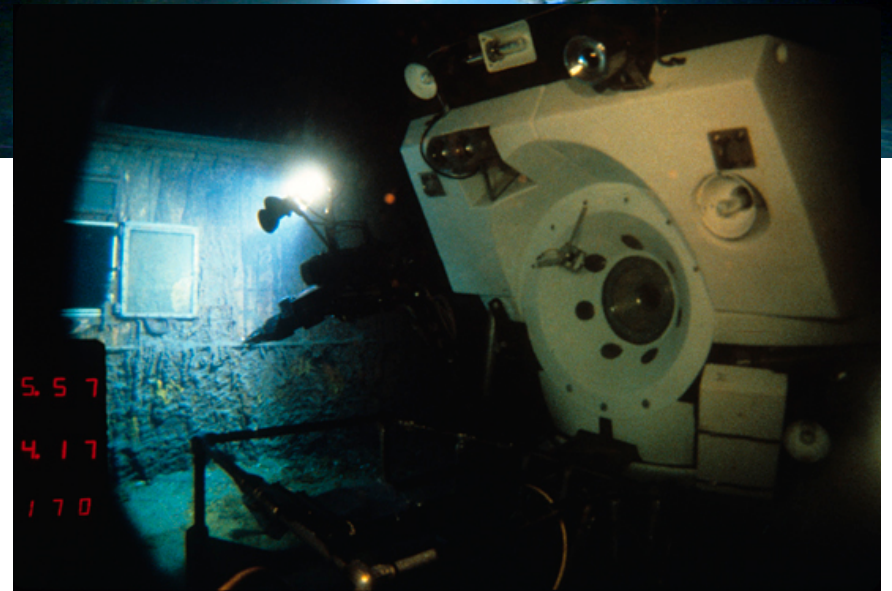
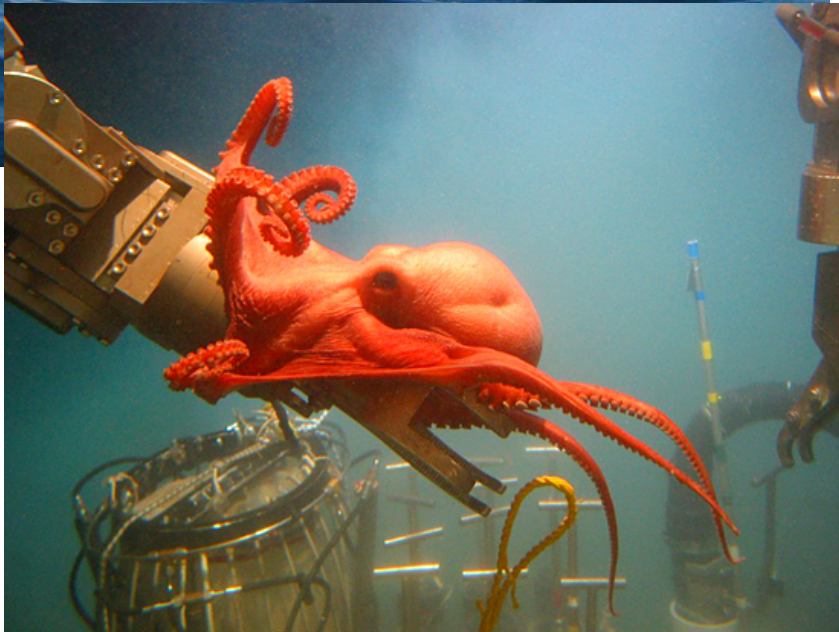
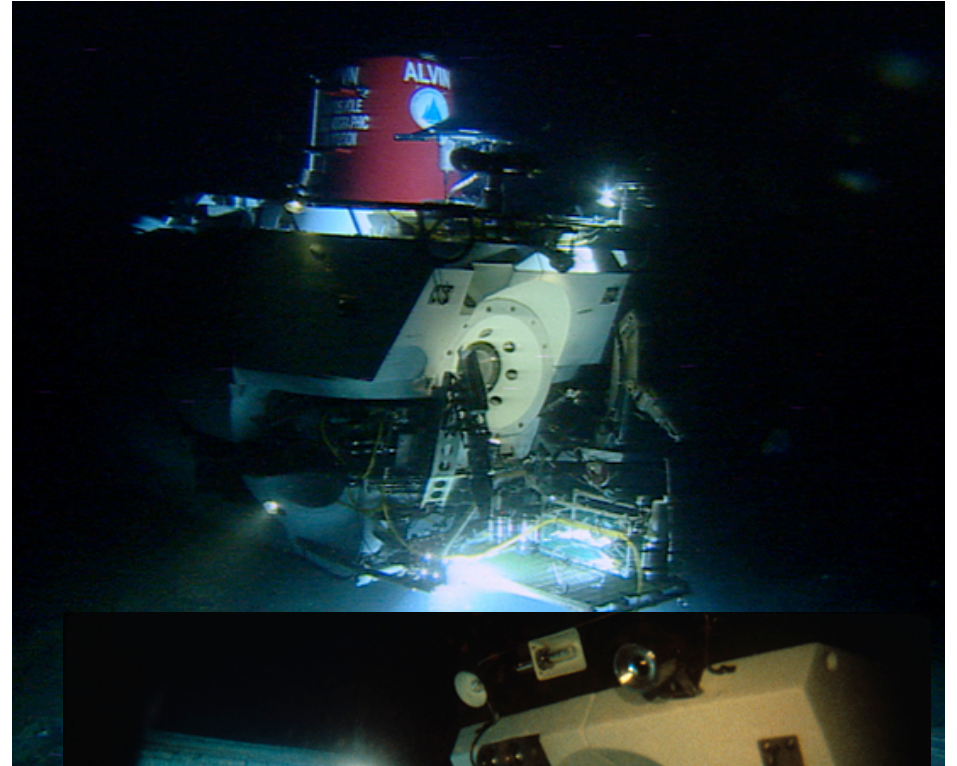


Where am I? MIT-WHOI

- Joint Program in Oceanography
- Working toward a PhD
- Lots of commuting



ALVIN



Money

- Undergrad dining hall: \$9/hr
- Undergrad research: \$5000/summer, \$500/wk
- Now: \$31000/yr, \$620/wk, \$12.40/hr

Twice that if you consider they cover my tuition

- Next: Research position, at least \$900/wk
- Financial aid: need + merit aid brought the bill to \$15k/yr in college including room and board: my mom paid half and we took half in loans

Things to Look Into

- SEA summer camp:

http://www.sea.edu/high_school_programs

- College research: REU

<http://www.nsf.gov/crssprgm/reu/index.jsp>