

## Welcome! to Phys 2020

- 1) Press & HOLD power → blue flash.
- 2) Key in DC → green flash

Do you have a clicker with you today?

- A) Yes, I have a clicker with me.
- B) No, I don't have a clicker  
so I can't vote.



*Please register your clicker ASAP*

1

## Welcome!

[www.colorado.edu/physics/phys2020](http://www.colorado.edu/physics/phys2020)

[steven.pollock@colorado.edu](mailto:steven.pollock@colorado.edu)

[oliver.dewolfe@colorado.edu](mailto:oliver.dewolfe@colorado.edu)

Lab sections *meet* this week

*Are you interested in teaching?*

*Google CU Teach, and look for "Step 1"...*

3

PHYS2020 - Fall '10 - Homepage

http://www.colorado.edu/physics/phys2020/phys2020\_fa10/index1.html

to do Mac wiki-paradigms OSU422 2009 OSU422 2008 OSU-320 Phys2020-Fa10 PHYS2020-eld Thomason demos Thomason - others Giancoli Catalyst CUConnect CULearn my\_CU CU Portal CU mail SIS-CU Google

PHYS2020 - Fall '10 - Homepage

## Physics 2020: Fall '10

**General Physics 2 (Electricity & Magnetism, Optics, and Modern Physics)**  
*MWF 11:00-11:50 Duane G1B20 (Section 100)*

---

[Home](#)

[Contacts](#)

**Course Info**

[Syllabus](#)

[Schedule](#)

[Exams and Grades](#)

[FAQs, Virtual Office hrs](#)

[I need help!](#)

**Lecture**

[Reading assignments](#)

[Lecture Notes](#)

[Concept Tests](#)

**Labs/Recitations**

[Assignments](#)

[Lab sections](#)

**Homework**

[CAPA Assignments](#)

[PIN-Getter](#)

[CAPA Help](#)

[Written Homework](#)

**Other useful links**


[Help Room Hours](#)

[PHET simulations](#)

[Active Physics home](#)


[Giancoli's Physics](#)

[Old 2020 courses](#)



**Prof. Steven Pollock (Lectures)**

*Office:* Duane F-1013  
*Phone:* (303) 492-2495  
*Email:* [steven.pollock\(at\)colorado.edu](mailto:steven.pollock(at)colorado.edu)  
*Office hours (tentative):*  
 MW after class, then I will move to the help room until 1 PM  
 F after class, (i.e. around 12:15 or so) for administrative issues in my office.  
 Or by appointment/email any time.



**Prof. Oliver DeWolfe(Labs)**

*Office:* Duane F-327  
*Phone:* (303) 492-3272  
*Email:* [oliver.dewolfe\(at\)colorado.edu](mailto:oliver.dewolfe(at)colorado.edu)  
*Office hours (tentative):*  
 MF 10-11 in the HelpRoom  
 W 12-1 (administrative issues) in office. Or by appointment/email any time.

**Announcements**

- **Welcome to Physics 2020!** First class is Monday, Aug 23
- **Please bring an iClicker every day, even to the first class.**
- There will be labs/recitations in the first week, please find your section and attend.
- **Extra credit opportunity** - preterm survey: The physics education research group is interested in your thoughts about learning physics. Please take a few minutes to [fill out this survey](#). It will be available the first week (or so) of class, and we will give you a lecture's worth of bonus (extra credit!) clicker points for taking the time. (We get a list of participants, and averaged responses, but your personal answers are not linked to your name, so please give your honest opinions)

Font Check !

This is 32 point font.

This is 28 point font.

This is 24 point font. } ←

This is 20 point font.

This is 18 point font.

This is 16 point font.

This is 14 point font.

5

### Clicker Question

What do you think about physics?

- A) I love it. I wish I could take more physics classes!
- B) I find it interesting and am looking forward to this term.
- C) I am ambivalent.
- D) I dislike physics
- E) I despise physics (can I go now?)



6

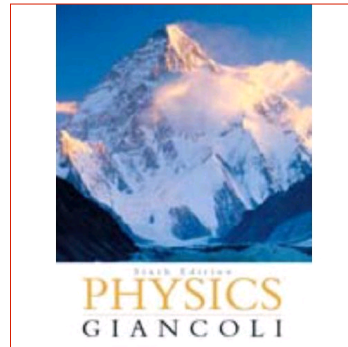
### Required Text:

"Physics"

6<sup>th</sup> Edition by Giancoli

Chapters 16-33.

Extra copies on reserve in  
the library (upstairs).



11

Exams:

There are 3 midterm exams: Tuesdays (7:30-9:15 pm)

**Sep 21, Oct 19, Nov 16**

The final is Tue **Dec 14, 7:30 PM**

**Make sure you have no conflicts!**

***If you have special needs, let us know ASAP.***

12

**CAPA** homework is due every week Monday (midnight)

**(The 1st assignment is due next week!)**

If you have any problems, please let us know ASAP.

***Late homework isn't accepted by the online system.***

13

**Written** homework is due Thursdays, 5 PM  
(pretty much every other week)

Turn in written homework assignments to your lab TA's  
box at the front of the help room.

**The first assignment is due a week from Thurs**  
(I will post it soon)

14

**Labs/Recitations:**

- every week (starting *this week*)

Pre-lab is due at start of your section.  
(Except this week)

Print it out and give it to your TA.

A tennis racket and can of balls (together) costs \$110.  
The tennis racket alone costs \$100 more than the can of balls.  
How much does the can of balls alone cost?

- A) \$5
- B) \$10
- C) \$11
- D) \$100
- E) None of these/not sure

16

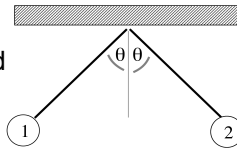
## **Now for some new physics...**

Since ancient times people have  
been aware of electrical  
phenomena.

Lightning, sparks, ....

17

Two equal mass pith balls are charged, and hang on strings as shown:



What can we conclude about the signs of  $Q_1$  and  $Q_2$ ?

- A: One is "+", the other is "-"
- B: Both are "+"                      C: Both are "-"
- D: Both must be the same charge (but we can't tell if they're both "+", or both "-")

2 socks are observed to attract each other. Which, if any, of the first 3 statements MUST be true? (emphasis on MUST)

- A) The socks both have a non-zero net charge of the same sign.
- B) The socks both have a non-zero net charge of opposite sign.
- C) Only one sock is charged; the other is neutral.
- D) None of the preceding statements MUST be true.