

Physics Orientation- Day 10

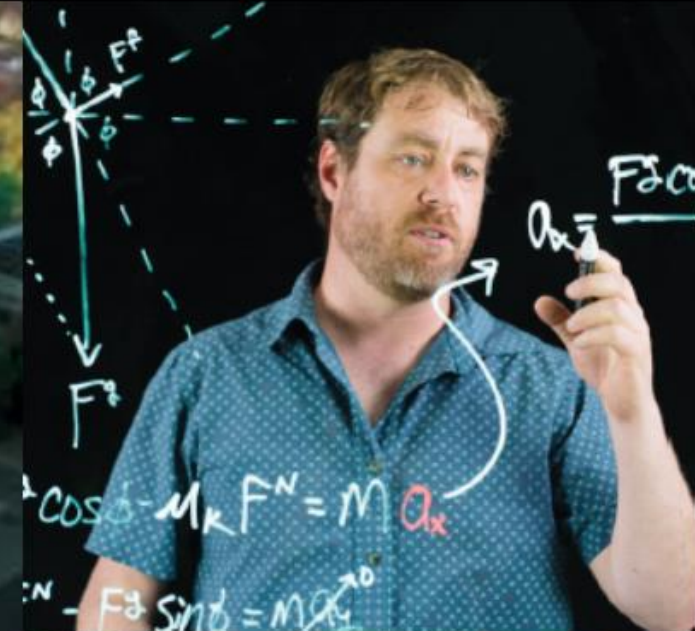
Panel discussion – *ask now or regret later!*
Welcome guests from Intel!



Oregon State
University

Department of Physics

physics.oregonstate.edu

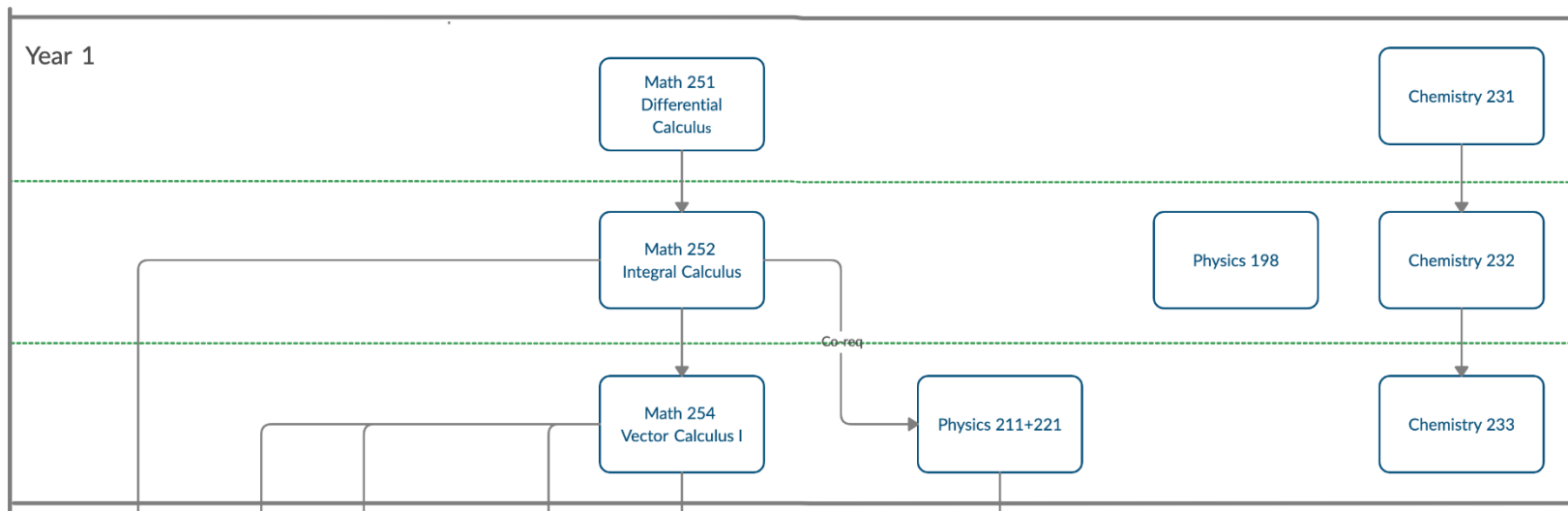


198 Orientation Summary

- Day 1 -- Meet your department and future colleagues
- Day 2 -- Welcome from College of Science and the Career Center
- Day 4 -- Internships and Jobs
- Day 5 -- Research Opportunities; Making yourself competitive.
- Day 6 -- Upper division physics. Panel of paradigms students

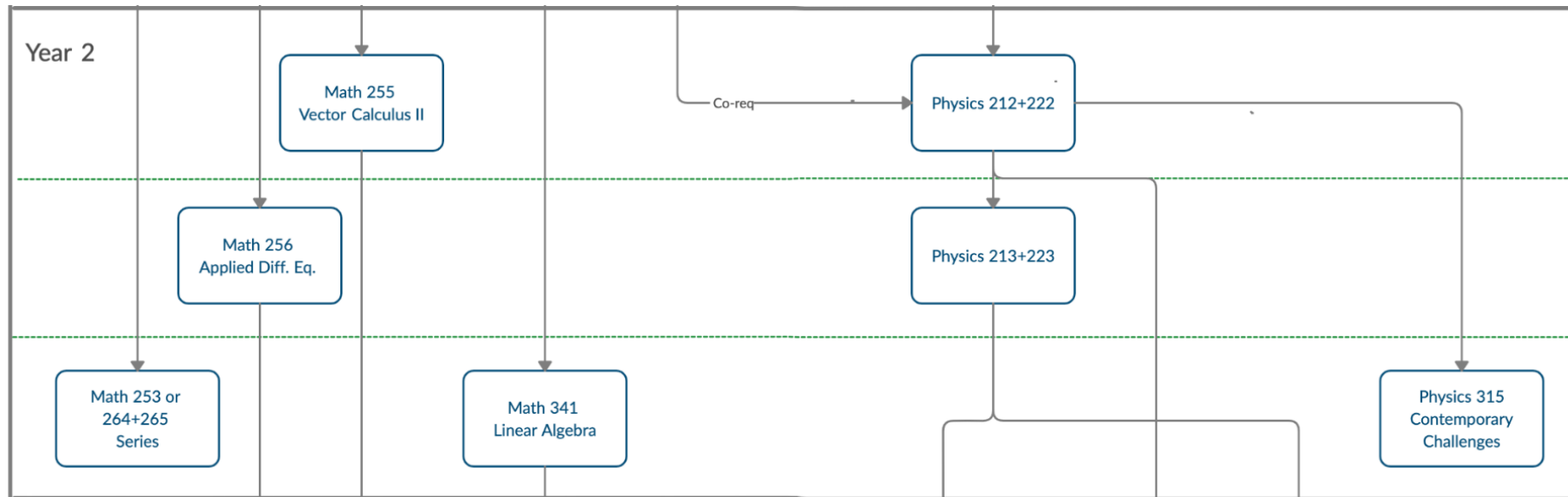
The Lower-Division Curriculum

	Fall	Winter	Spring
Year 1		PH 198 (1)	PH 211 (4) + PH 221 (1)
	MTH 251 (4)	MTH 252 (4)	MTH 254 (4)
	<i>CH 231 (4)</i>	<i>CH 232 (4)</i>	<i>CH 233 (4)</i>
	<i>CH 261 (1)</i>	<i>CH 262 (1)</i>	<i>CH 263 (1)</i>



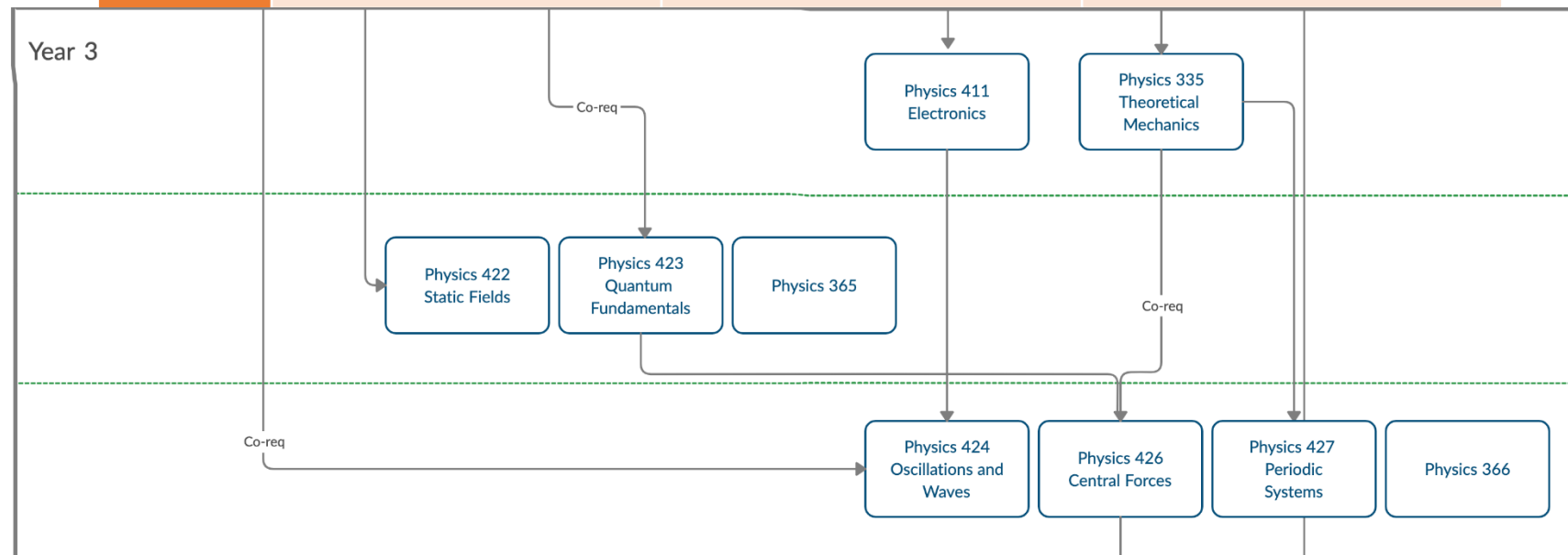
The Lower-Division Curriculum

	Fall	Winter	Spring
Year 2	PH 212 (4) + PH 222 (1)	PH 213 (4) + PH 223 (1)	PH 315 (3) Contemporary Challenges
	MTH 255 (4)	MTH 256 (4)	MTH 253 (4) OR MTH 306 (4) OR (MTH 264 (2) + 265 (2))
			MTH 256 (4)



The Paradigms Curriculum

	Fall	Winter	Spring
Year 3	PH 315 (3) Contemporary Challenges	PH 422 (3) Static Fields	PH 424 (3) Oscillations & Waves
	PH 335 (4) Intermediate Mechanics	PH 425 (3) Quantum Fundamentals	PH 426 (3) Central Forces
	PH 411 (3) Electronics	PH 415 (3)/ PH 464 (3) Computer Interfacing	PH 427 (3) Periodic Systems
	Math Catch-up	PH 365 (1)	PH 366 (1)



The Paradigms Curriculum

	Fall	Winter	Spring
Year 3	PH 315 (3) Contemporary Challenges	PH 422 (3) Static Fields	PH 424 (3) Oscillations & Waves
	PH 335 (4) Intermediate Mechanics	PH 425 (3) Quantum Fundamentals	PH 426 (3) Central Forces
	PH 411 (3) Electronics	PH 415 (3)/ PH 464 (3) Computer Interfacing	PH 427 (3) Periodic Systems
	Math Catch-up	PH 365 (1)	PH 366 (1)
		New Experimental Course	PH 401 (1) Thesis Research
Year 4	PH 403 (1) Thesis Writing	PH 403 (1) Thesis Writing	PH 403 (1) Thesis Writing
	PH 423 (3) Energy & Entropy	PH 481 (4) Optics	
	PH 431 (3) Electromagnetism	PH 451 (3) Quantum Mechanics	PH 441 (3) Statistical Physics
	PH 367 (1) Computational Physics	PH elective (3)	PH elective (3)

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- Day 7 -- Research lab scavenger hunt. WIC requirement.
- Day 8 -- Team Competition Day! Test your wits. Into to CM research.
- Day 9 -- *So you want to be a theorist ! ? !* Dr. David Craig
- Day 10 – Industry panel

198 DAY 1 TEAM RANKING



1. Team Jansen



2. Team Schellman

3. Team Weniger (4/5)

4. Team Krane

One point each awarded to Team Schellman and Krane.

	FORCED SOCIALIZING	OREGON TRIVIA	PHYSICS TRIVIA	REAL PHYSICS	Total	%	Points
Weniger	1	4	8	3	16	62%	
Schellman	1	4	5	7	17	65%	1
Krane	1	2	5	9	17	65%	1
Jansen	1	5	5	5	16	62%	
MAX	1	5	8	12	26	100%	
Link	https://forms.gle/gCo	https://forms.gle/	https://forms.gle/	https://forms.gle/SQP2xtTb9pmY3CT17			

Prize	Team	Rank Day 1	Rank Day 8
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1	Schellman	2	1 (tie)
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2	Jansen	1	2 (tie)
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3	Krane	4	1 (tie)
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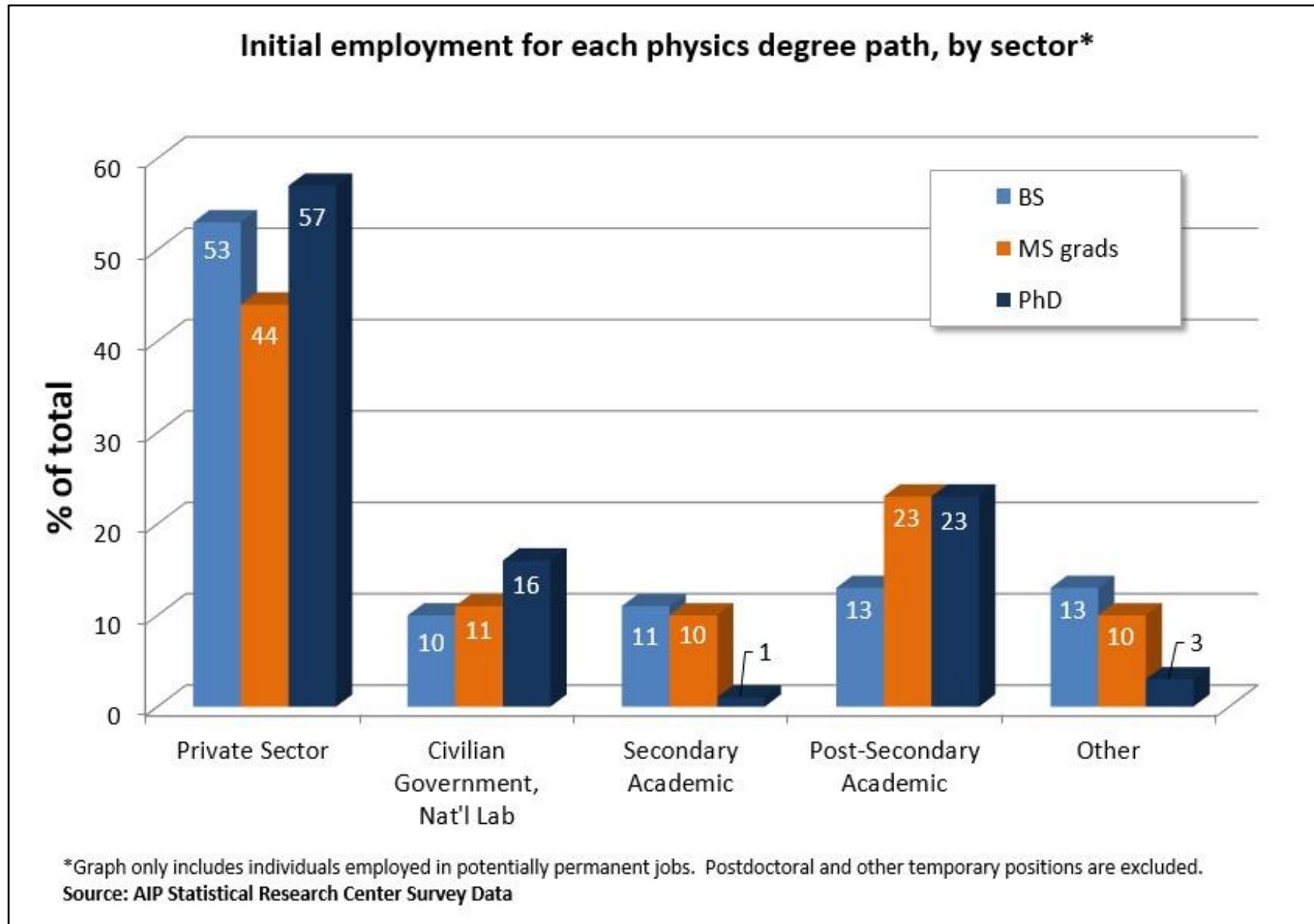


4	Weniger	3	2 (tie)
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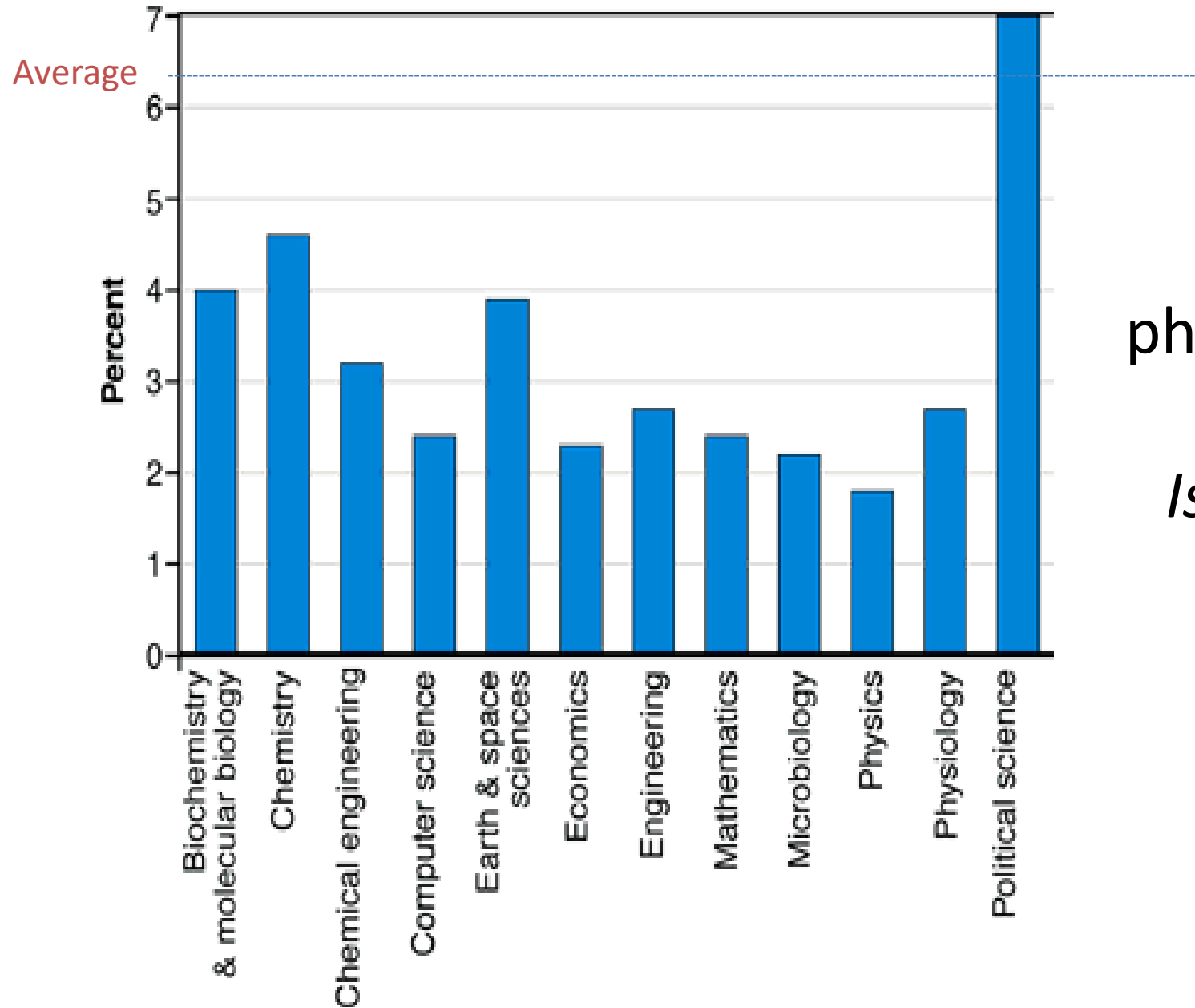
Congratulations to Team Schellman



Some Statistics: Where Physicists Work



Unemployment Rates



But what are these
physicist actually doing?

Is the devil in details?

7. Imagine you could have any of the below jobs after graduation, which would you choose?



Engineer at Intel

(0) 0%

Physics teacher

(2) 10%

Observational astronomer

(10) 50%

Software coder at promising new 'start-up'

(1) 5%

Physics theoretician (no experiments!)

(5) 25%

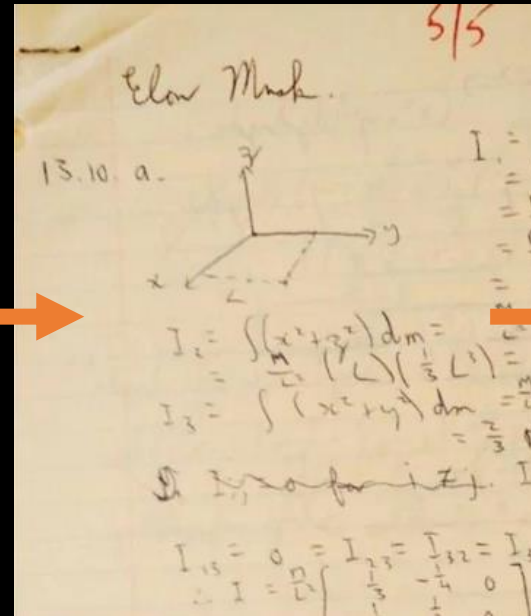
Entrepreneur

(2) 10%



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Who are these physics students?



Portland Area Employees

Global Employees



1

Intel
5200 N.E. Elam Young Pkwy.
Hillsboro, OR 97124
503-696-8080
intel.com

20,600

107,400

Semiconductor computing and communications technology that helps secure, power and connect billions of devices from the cloud to the network to the edge and everything in between

2

Providence Health & Services
4400 N.E. Halsey St.
#599
Portland, OR 97213
503-893-6500
providence.org

18,885

119,000

Not-for-profit health care provider with hospitals, clinics and home services

3

Oregon Health & Science University
3181 S.W. Sam Jackson Pk.
Portland, OR 97239
503-494-8311
ohsu.edu

17,556

17,556

Oregon's public academic health center and nationally distinguished research university dedicated to advancing health sciences

4

Nike Inc.
1 Bowerman Dr.
Beaverton, OR 97005
503-671-6453
nike.com

12,000

74,000

Designer, marketer and distributor of authentic athletic footwear, apparel and accessories

Local talent is...

... easier to hire!

.... easier to fire!

... more likely to stay!

What do statistics say is the most probable distribution

7. Imagine you could have any of the below jobs after graduation, which would you choose?

Engineer at Intel (0) 0%



Physics teacher (2) 10%



Observational astronomer (10) 50%



Software coder at promising new 'start-up' (1) 5%



Physics theoretician (no experiments!) (5) 25%



Entrepreneur (2) 10%



Statistics suggests at least
~2 of you will be!

~2 of you will be!

~40-50 advertised jobs/year

<https://www.astrobetter.com/wiki/Rumor+Mill+Faculty-Staff>

Estimate 5-10 of you will be.

33 advertised jobs last year

<http://particle.physics.ucdavis.edu/rumor/doku.php?id=archive:2020>

Some of you will be!

WELCOME!



Hazel Betz, Intel
Fault Isolation Engineer



Joshua Kevek, Intel
Technology Development Engineer

What do you do now? Where are you from?

What kind of career did you think you might have when you were still a student at OSU?

Day 10 Agenda

2:15-2:35- Introduce panel.

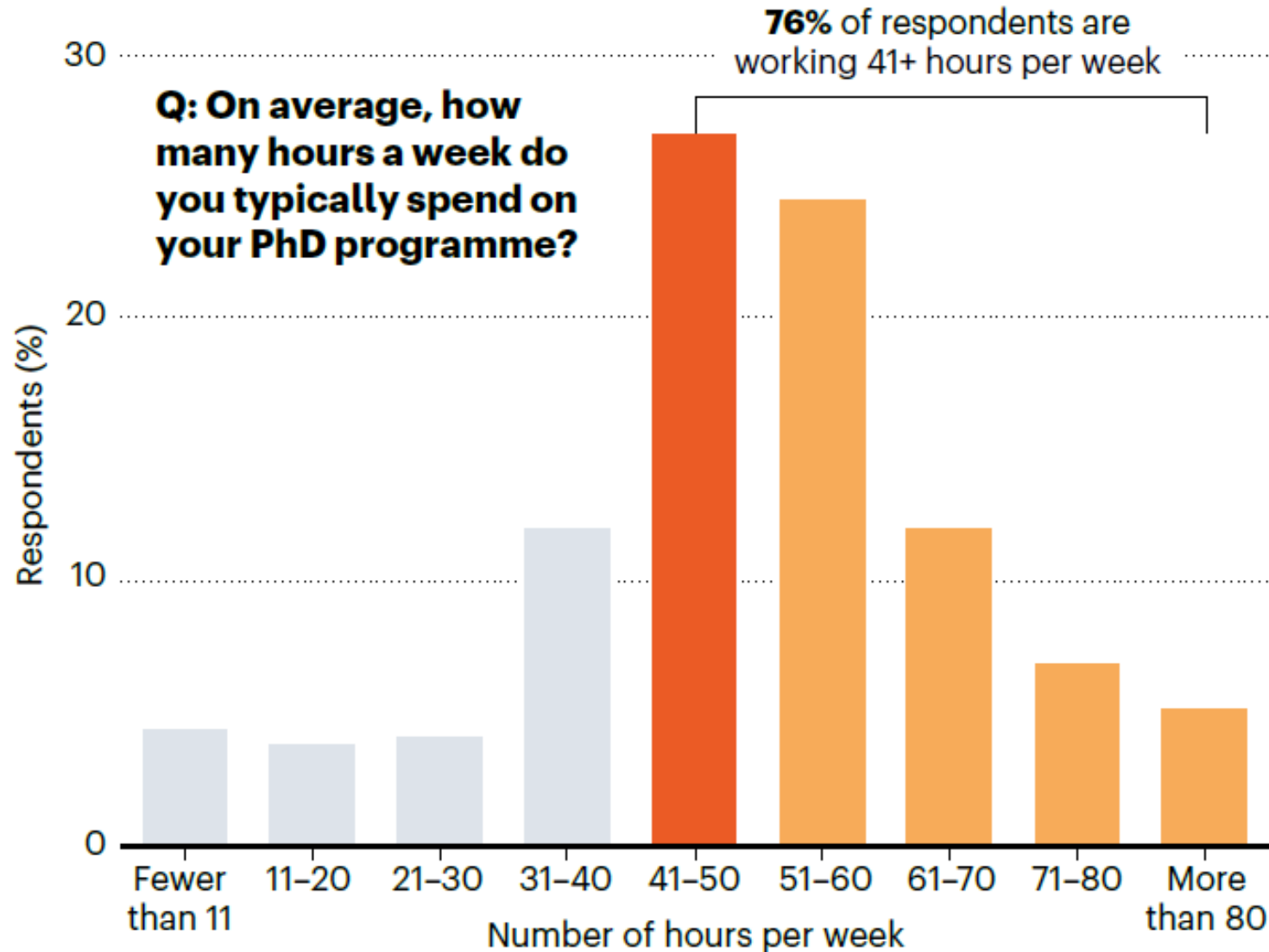
-Why would Intel be interested in a Physicist?

- Open question period.

2:35-2:45 Q&A in 3 private break-out room discussions.

2:45-2:50 – Finish up. Thank you all!

*Here is how many hour graduate students work.
How about in industry?*



Break Out Room Discussion

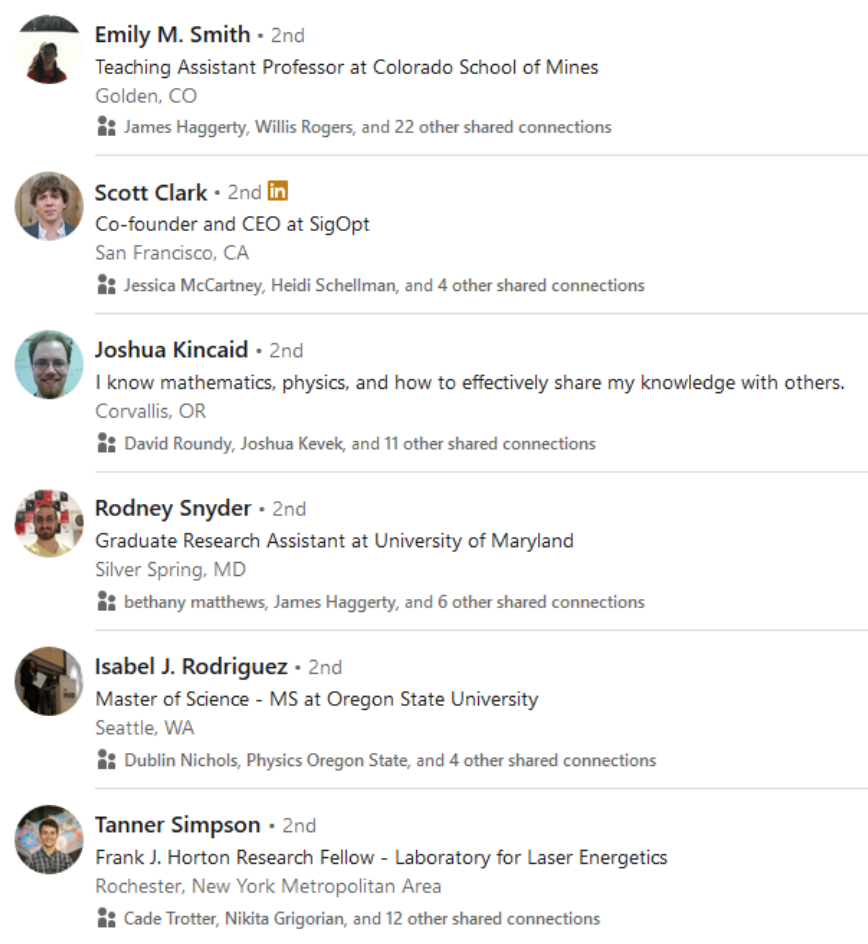
Incomplete homework: Activity LinkedIn®

Most (80%) of people get their jobs through 2nd degree connections.

<https://www.linkedin.com/in/physics-oregon-state-b195b869/>

Homework:

- Complete your LinkedIn profile after class
 - *Picture!!!*
 - *Educational Information (e.g. high school, college)*
 - *Transferrable Skills (volunteering experience, research, hobbies, etc.)*
- Connect with me and 10 individuals in PH 198
 - *Other Students*
 - *Organizers*
 - *Speakers*





Oregon State University

Career Development Center



Explore Majors Programs, and Career Paths



Create Résumés, CVs and Cover Letters



Find a Job, Network, and Interview



Prepare for Grad School



Graduate Students



Career Guide and Resource Library



Oregon State University

Department of Physics

physics.oregonstate.edu

We wish you luck
as you go on *your* way!