

Berkeley SPS



What is SPS?

The Berkeley Society of Physics Students is the official voice of the undergraduate physics community and serves to bridge the gap between the department and students.

Through academic, social, and outreach opportunities, we aim to foster a supportive and inclusive environment for people of all backgrounds.

Staying Connected



Follow or Host
sps_berkeley
On Instagram!



plazza

Sign up for our mailing list!

Visit sps.berkeley.edu

Ask anonymous questions
related to SPS or the
department.

FSL, UG Seminar & Academic
events held by SPS!



Collaborate within the
department!

Connect with us
on fb :)



We send info!
Contact us :)
ucbsps@gmail.com

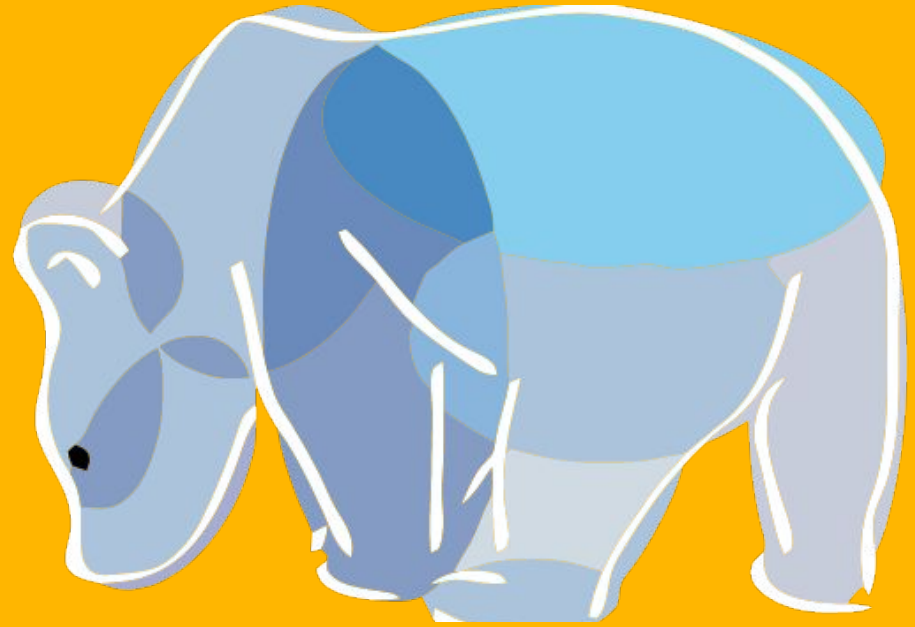


Outline

What you'll hear today!

1. Berkeley Discover
2. Officers
3. Committees
4. Events
5. Upcoming Events
6. Pizza!

Berkeley Discover - a grant to improve your experience as a physics undergraduate!



- Equalize the Space
 - Share stories and experiences, not names/gossip
 - All knowledge and opinions are equally valid
 - Give space before taking space
- Check your Assumptions
 - No judgements (including self-judgements) or disclaimers
 - Treat everyone as an individual and not a representative of a specific group
 - Believe in our common best intentions
- Right to be Human
 - Avoid blaming people for misinformation taught to them
 - Acknowledge emotions
 - Practice forgiveness
- Practice Consensual Dialogue
 - Active listening





**Shantanu +
Wendy**
Presidents



Siddhant
VP



Elena
E&I



Kobe + Ameya
Seminar



Bingxu
Secretary



Pablo
Outreach



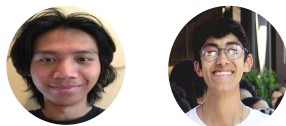
Jinze
Media



Nathaniel
BBQ



Ruoyi + Vibhu
Webdev



Max + Christian
Treasurers



Digvijay + Ninni
Projects



Vivian + Binhan
Competitions



Shantanu +
Wendy
Presidents



About:

- Out-of-state
- 4th year
- Vegan

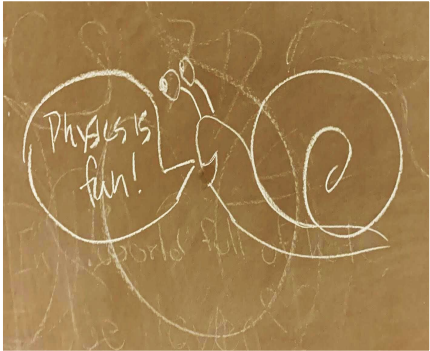
Research Exp:

- Particle Phy.
- Electrical Eng.
- Power outages & solar panels
- Biophysics



Interests:

- Environment
- Chalk
- Fooooood



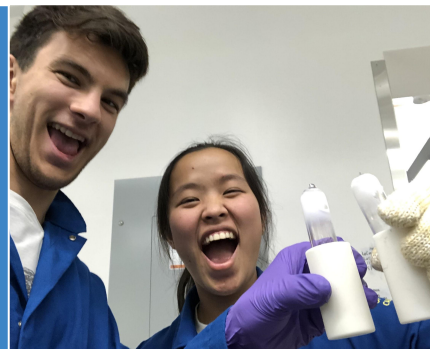


Shantanu +
Wendy
Presidents

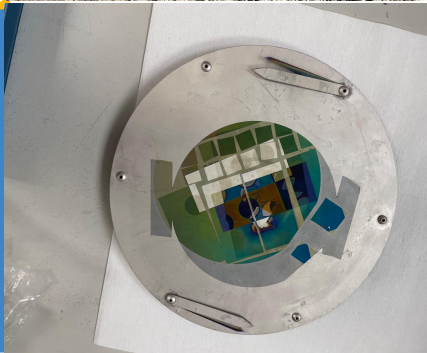


Research in the
good old days→

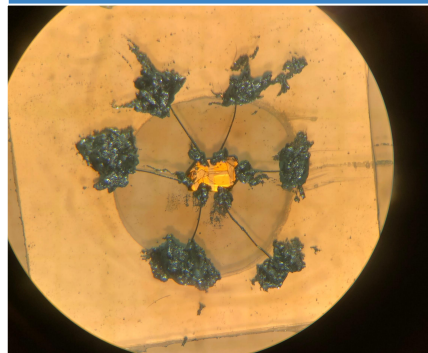
My ugly cat: just
got a surgery ;(



Research:
CONDENSED
MATTER!



Sunsets in
Campbell are the
best I've seen



LOVE foood!!!
(subscribed in
Hello Fresh but
ended up quitting)



The Officer Board



Siddhant

VP

Me and my friends →



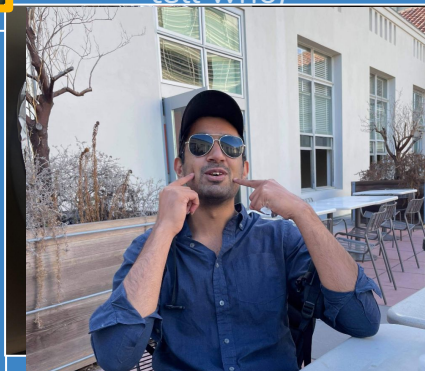
Research:
Topological
Insulators and
recently left AMO!!



I call the worst city in the world my home (yup, Delhi). Like physics for the masochistic pleasures. Have a mini crush on one of the seminar chairs (won't tell who)

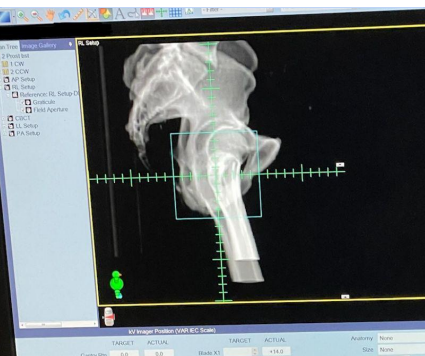


LOVE COOKING
AND SINGING!!!




I like being edgy
and waging war
upon racoons.

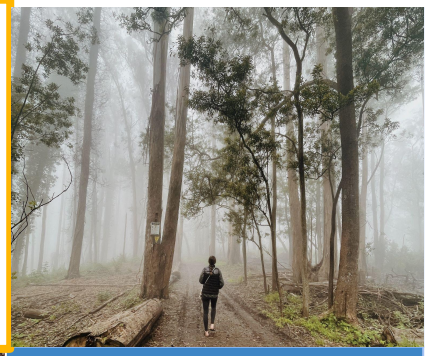
The Officer Board



Research: Medical Physics stuff
(very, very vague)



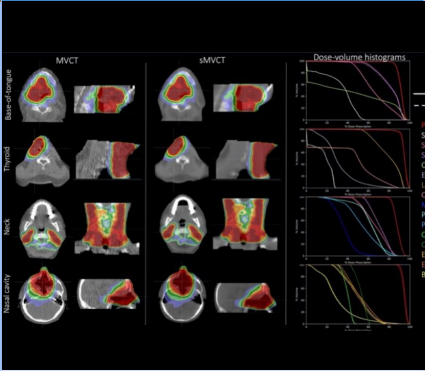
Elena
E&I



Ask me about ...

- Dance @ Cal
- Hiking in Birks
- Changes you want to the department

From San Diego
(Cali born and have never left).
No, I do not surf :P



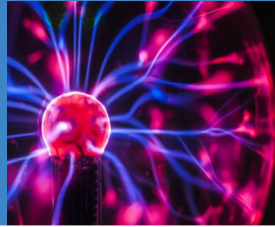
3rd year
Physics & Applied Math

- Thrive Dance Co. Comms Director
- Kinda do some CS stuff (low commitment, high reward)
- DE&I Student Rep





Fourth Year Physics Major



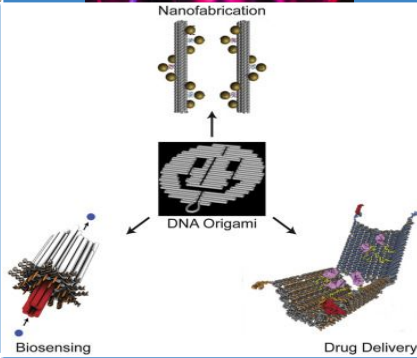
Kobe + Ameya

Seminar

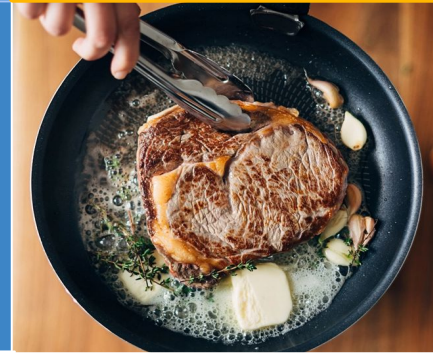
Research:
DNA nanotechnology



Through ULAB



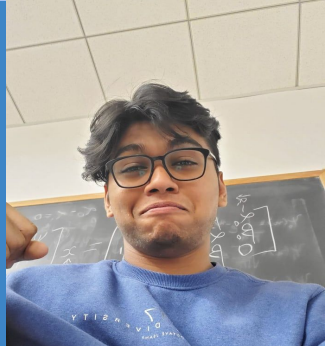
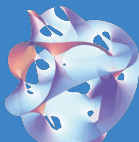
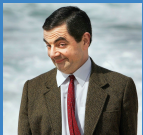
Hobbies:
Cooking (eating),
storytelling, talking
(a bit too much),
playing games with
friends.



Interested in:
Physics (as
expected),
chemistry, biology,
dancing, basically
everything.



Research Interest:
High Energy Theory,
Putting tight bounds
on fart noisiness



I'm from south africa
and i surf a lot and uh
I uh... what else do i
do... play with snakes?
And uh crack deez
nuts jokes and uhh...



Kobe + Ameya

Seminar

3rd year Physics and
CS. Currently doing
research in
simulations of dark
matter. (Probably the
only tile with a hint of
truth in it)



I was a cute kid.



Give me research
please.

Hobbies:
harpsichord,
crackers, cereal,
eating peaNUTS,
Ping Pong, Soccer,
Skribbl God



I might be into
anime, can't tell
yet, need a body
pillow first



Chillin in the floods, hbu?



About:

- Call me Howard if you'd like!
- From LA Diamond Bar
- 2nd year physics and CS major



**Bingxu
(Howard)**

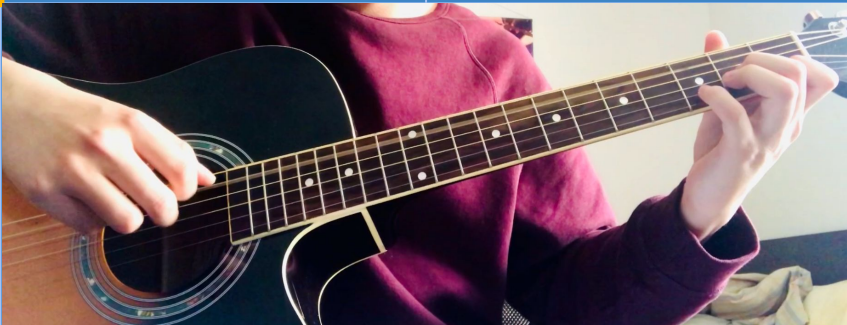
Secretary

Physics: Particle physics, quantum computing

Sports: Badminton, table tennis, sometime basketball

Movies: Theory of Everything, The Martian, Interstellar

Fun: Fingerstyle guitar, league, rhythm games, anime and J-POP (Yonezu Kenshi)



Research: Search for new physics by ML models data analysis @ ATLAS

^^ Meet Momo!
She's a Border Collie, soon will be her 1 year old birthday.



Actual History:

- From Bilbao, Spain!
- 2nd Year Physics and Math major
- Went to HS in the UK and Spain



Research History:

- Neutrinos @ IceCube
- Particle @ ATLAS (w/ BingXu!)
- Nuclear @ Berkeley



Pablo

Outreach

Fun Facts:

- Like basketball, GSW fan!
- ULAB mentor this year
- Lazy in weekend



Hobbies:

- Hanging out with girlfriend and the bois
- Eating
- Sleeping
- Physics (maybe?)



Opinions:

- Jeremy Brett is the best Sherlock Holmes
- Revenge of the Sith is a masterpiece
- Philipp Lahm is the GOAT right back



Likes:

- Books
- History of the Civil War
- FC Bayern winning
- Sleeping to the afternoon



Jinze
Media Chair

Research:
Develop and use optical spectroscopy to probe quantum materials

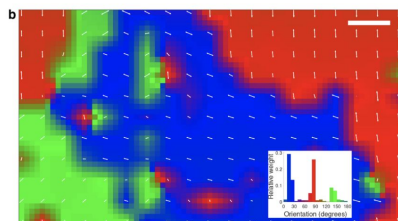
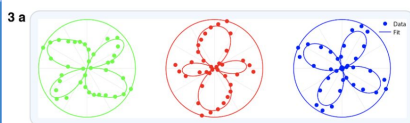


Dislikes:

- taking pictures of myself (...)
- Washing dishes
- not having the high ground

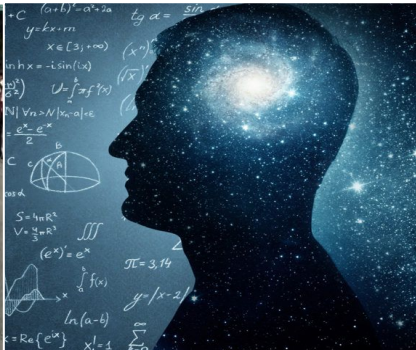
I'm:

- a 3rd year intended physics and applied math major
- a meme lord
- from LA but born in Beijing



My name is Nathaniel

- physics and math major
- neutrino physics research
- 3rd year



CHANGES I WOULD MAKE TO THE STANDARD MODEL

CONSISTENT QUARK NAMES
(USE 'STRANGE' AND 'CHARM' FOR BOSONS)

u UP	l (LEFT)	t TOP	g GLUON	V VANDERBILT
d DOWN	r (RIGHT)	b BOTTOM	γ PHOTON	G GRAVITON
e ELECTRON	μ MUON	NO ONE NEEDS TAU LEPTONS		S STRANGE BOSON
ν_e ELECTRON NEUTRINO	ν_μ MUON NEUTRINO	D DARK MATTER	C CHARM BOSON	M MAGIC

WITH ALL RESPECT TO PETER H, THE HIGGS BOSON NEEDS A FLASHIER NAME

LET'S JUST INCLUDE IT, IT'S PROBABLY FINE.

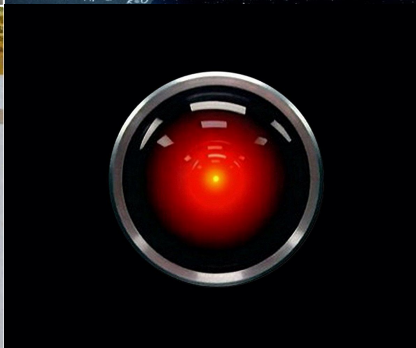
DECAY PARTICLE FOR PEOPLE MAKING NONSENSE CLAIMS ABOUT 'QUANTUM' PHILOSOPHY STUFF

VERY SMALL BUGS ARE FUNDAMENTAL PARTICLES NOW

FIX NEUTRINO SYMBOL SO I STOP MIXING UP ν AND $\bar{\nu}$ WE FOUND IT!

Likes:

- jazz
- movies

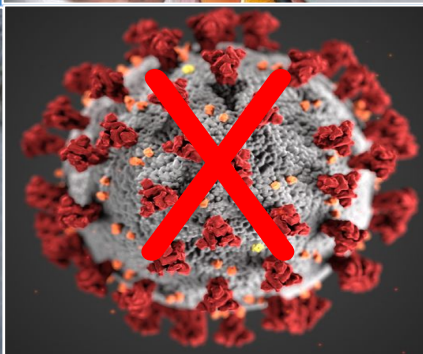


Nathaniel

BBQ

Dislikes:

- wet socks
- covid-19



I am the grill master!



The Officer Board

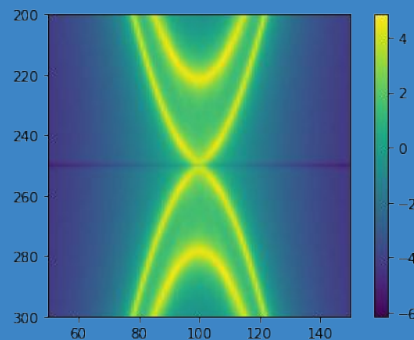
Research: (in Zaletel group)
- Simulating time crystals to probe for superconductivity
- Theoretically modelling non-linear circuits



$$\begin{array}{ccc} \text{Hom}(y, x) & \xrightarrow{\eta_y} & F(y) \\ \downarrow \text{Hom}(f, x) & & \downarrow F(f) \\ \text{Hom}(z, x) & \xrightarrow{\eta_z} & F(z) \end{array}$$

Second year
Physics and math
major
Does not believe in
superstitions

Meet Chocolate
(street name Butty)
- More talkative than
me
- Will bite you



- Originally from
Chennai, India
- Plays the violin
(Indian classical)
- Likes hiking and
movies



Ruoyi + Vibhu

Webdev



Research:
Astrophysics: binary stars and Intermediate-mass black hole
CMP: light-matter interaction

When no one believed you. But it turns out you were right

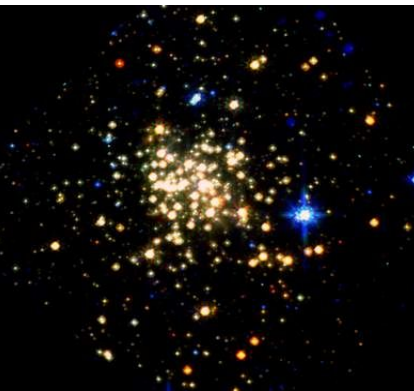
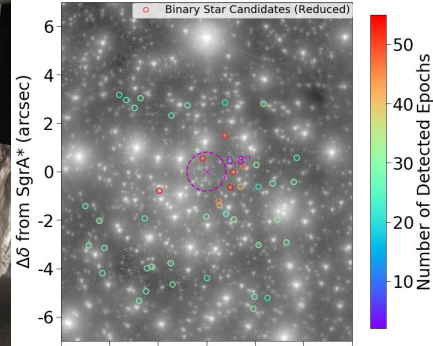


From Jinan, China
Fourth year
Physics major

Like:
Listen to music, piano,
opera, food, coffee
make ambitious plan
dislike:
Organize codes
Compile codes



Lives in the Campbell Hall
Some random glades



Ruoyi + Vibhu

Webdev



Who am I

- 3rd year
- Astrophysics/Physics
- Into music
- Also into food
- And volleyball
- Sometimes chess



How do I

- With a lot of stubbornness
- With friends
- By the grace of God

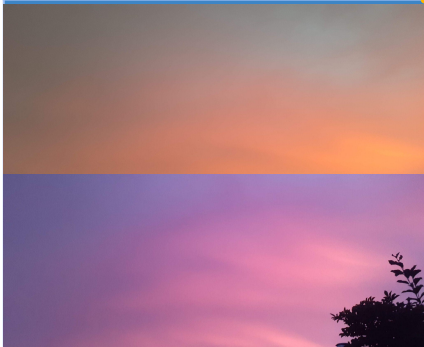


Max + Shaunak

Treasurers

What do I do

- Lots of eating
- Listen to music
- Look at the sky often
- Vibe



- Don't have a pet
- Noel (my roommate)
- CS -> DS -> CogSci
- Musically talented
- Culinarily challenged
- My fav person



Likes

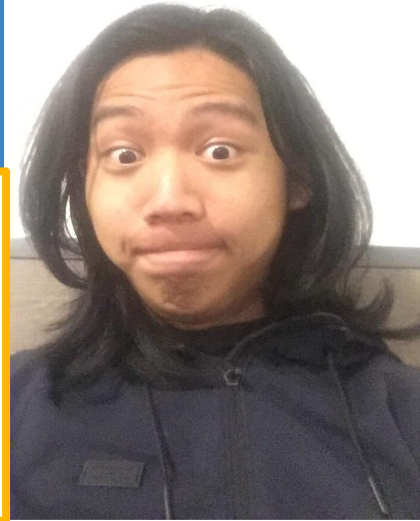
- Hats
- Space
- Food

Dislikes

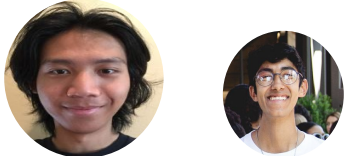
- Math
- Spicy food

Interests:
Condensed Matter
Physics, Music (Gypsy
Jazz and Classical
Music), Baking, Coffee

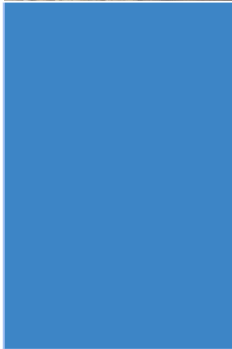
About Me:
- 3rd Year
- Physics and CS
Major
- From
Louisiana (the
other LA)



JAZZ!



Max + Shaunak
Treasurers



During COVID:
- Sleeping
- Growing out Hair
- Sleeping

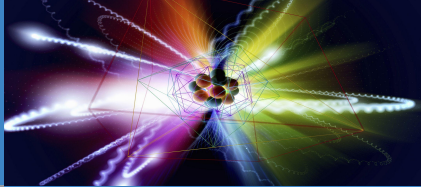
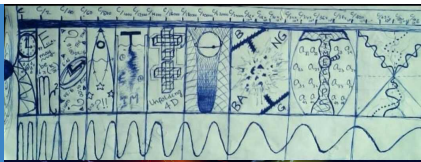


Research Stuff :

Particle Physics Theory

(there is nothing more beautiful than a Grand Unification Theory)

and phenomenology with Profs. Yury Kolomensky, Kam-Biu Luk, Hitoshi Murayama, and the ATLAS group @ LBNL



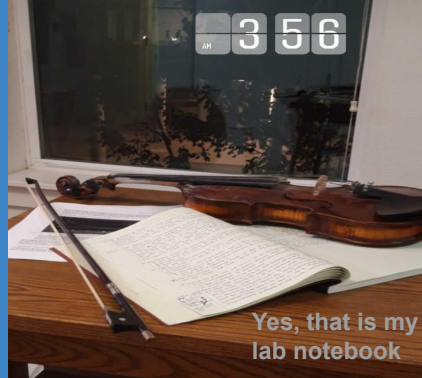
Hobbies:

- Acrylic Painting
- Violin, Keyboard
- Watching cricket
- Playing tennis
- Photography
- **when he is not in the photo**
- Beatboxing, whistling



About :

- 4th year Physics and (pure!) Math major
- Adores Organic Chemistry
- 30+ hour journey to home in India (100 deg. F is not hot)
- Highly inefficient for 95% of the day but unleashes timely delta potentials to make up



Beard Facts



Believe it or not :

- Once slept 2 hours in 5 days
- Sings better in a female voice
- Was in 4 research groups at the same time
- Never ever loses his temper. Here is a non-example ---->



Digvijay + Ninni

Projects

-Third year
Physics major
-International
student from
Kolkata



Research:
Condensed
Matter Physics



Hobbies:
-Talking (a lot)
-Wildlife Photography
-Taekwondo
-Drinking bobaless boba
-Baking and painting?
-Traveling and learning
about other cultures



Digvijay + Ninni

Projects

Random:
-I am always sleepy
-I am scared of fish
-I have been on THE
Harry Potter train
-I am the most random
person you'll ever meet

The Officer Board

About:

- 2nd year
- Need to have more milk than coffee in the coffee



I love fundamental physics and everything relates to that. (Currently in Norman's group - AMO)



Interests:

- Physicsss
- Poetry
- Basketball!!
- Fooooood
- Sleep
- Hang out



Vivian + Binhan

Competitions

The Officer Board

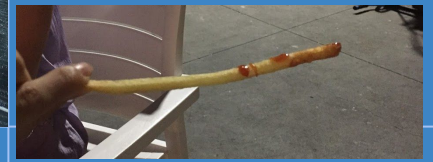
Who dis?
- 3rd Year
- Physics/Data Science
- Hangzhou (HFLSer)
- AMO Research
(Flying Gradiometer)

Random:
- Attempting to grow out long hair from a buzz cut (6 month in)
- Have a few katanas (idk why)
- Tired



Vivian + Binhan
Competitions

MOOD



- Weeb
- All-Platform Gamer
(need to catch up on a lot)
- Play and watch golf
(embracing my inner middle aged man)

Want to be involved with SPS?

Join Mentorship and/or (1+) Committees!

All events hosted by SPS are open to anyone.

Mentorship

Join a family, get advice + friendship,
compete with other families!

Being a Mentee

tinyurl.com/spsfa21mentee

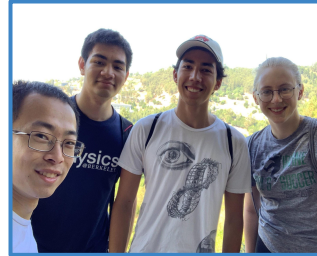
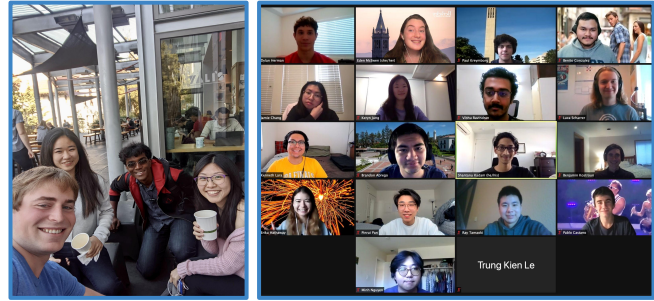
Deadline: Sunday, Sept. 19



Being a Mentor

tinyurl.com/spsfa21mentor

Deadline: Sunday, Sept. 19



Committees



WEBDEV

Develop SPS Internal content
while learning front & back end



OUTREACH

Spread your love for physics
to local communities



PROJECTS

Nurture an idea by
joining a team!



Outreach



Pablo

Want to spread your love for physics to the community?

The outreach committee works to spread STEM (mostly physics) enthusiasm to people of all ages and diversities, particularly through elementary educational outreach.

To join, please fill out the form at

<https://forms.gle/PhWP2sCci8JYt22p8>



Projects

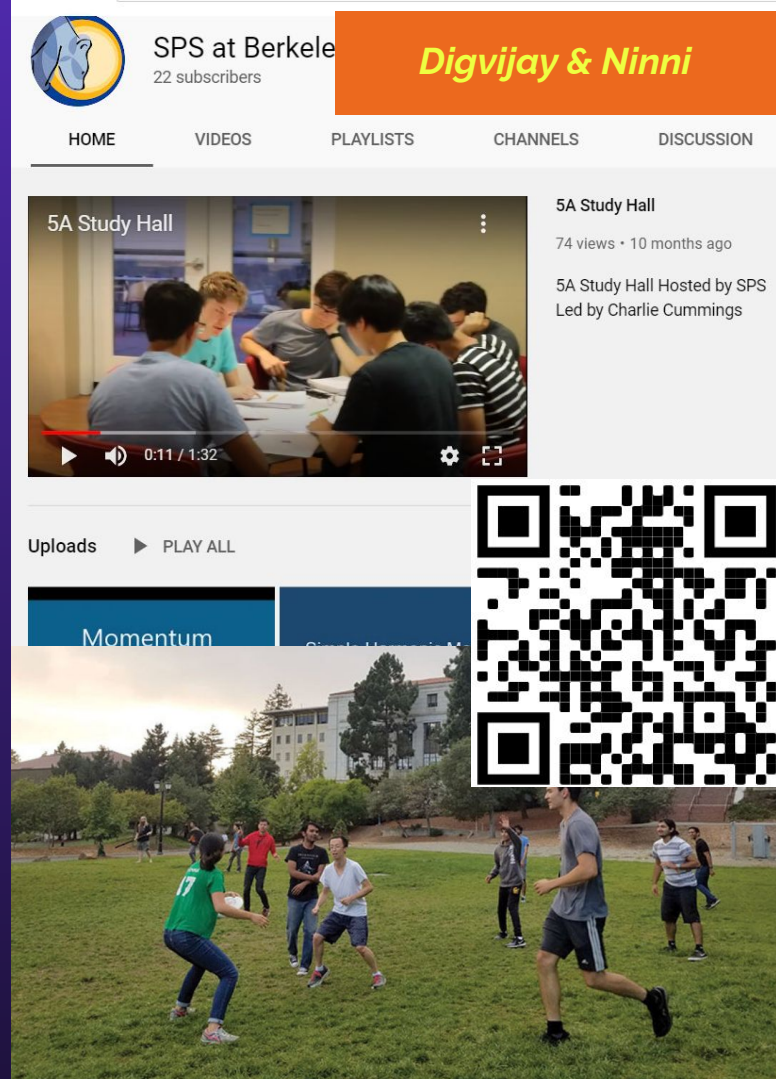
Have **cool ideas and new initiatives** you would implemented in the physics community? SPS Projects Committee curates interesting and educational adventures, allowing you to apply your knowledge beyond the boundaries of the class.

Come join us in constructing new physics demonstrations for outreach, setting up a pre-111A workshop, planning peer-mentor sessions, organizing arts & destress events, maintaining the SPS YouTube Channel, and a lot more.

We're chill & super fun!

First info meeting: Sometime next week (TBD)

If you can or cannot make it, please fill out the interest form : <https://forms.gle/uGTMvYFcyhXz7jTn7>



SPS at Berkeley
22 subscribers

Digvijay & Ninni

HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION

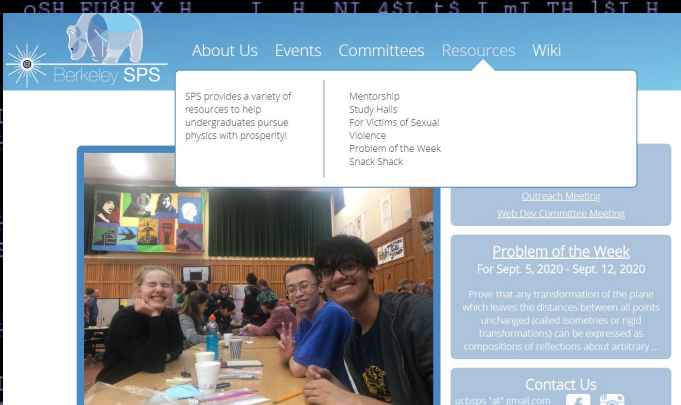
5A Study Hall
74 views · 10 months ago
5A Study Hall Hosted by SPS
Led by Charlie Cummings

0:11 / 1:32

Uploads ▶ PLAY ALL

Momentum

QR Code



Help develop and maintain our website!

The webdev committee provides an opportunity to be a part of building the SPS website and learn new skills. SPS members of all programming backgrounds are encouraged to join. If you have ideas for the website, come make them a reality!



First info meeting: Next week (date TBD)

To join, please fill out the form at <https://forms.gle/WUQRJwrJJs4udd4r9>

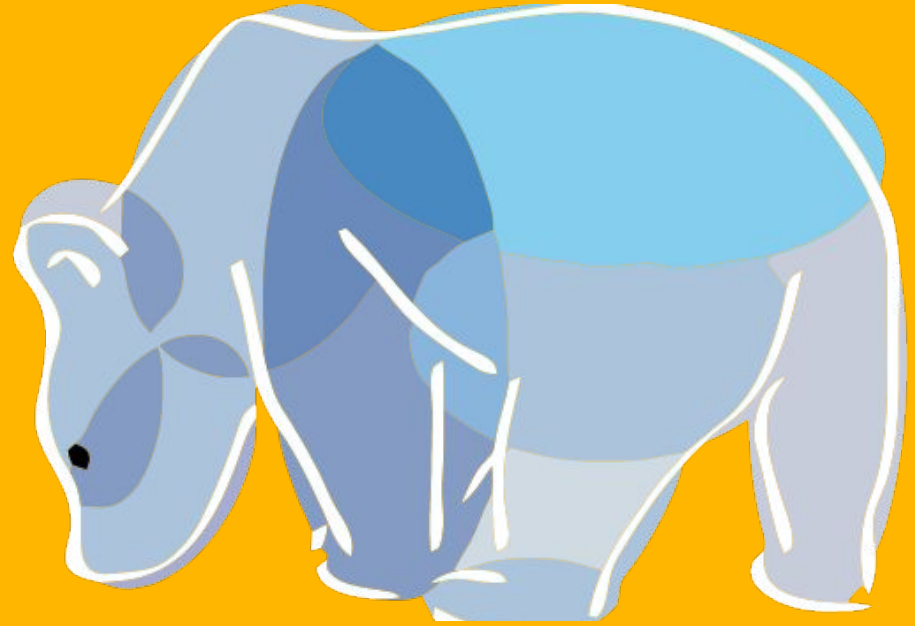
(<- or scan here)

First meeting attendance not required, a recording will be made available.

Ruoyi & Vibhu

SPS holds so many
events!

Let us tell you about
them!





Academic

UG Seminar
Faculty Student Lunch
Chilloquiums



Social

DeStress with SPS
Study Sessions
Office Hours
BBQ



Competitions

BPT
USPT
Problem of the
Week

Events Hosted by SPS



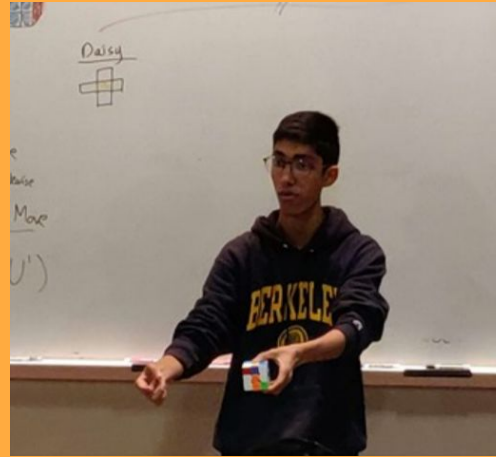
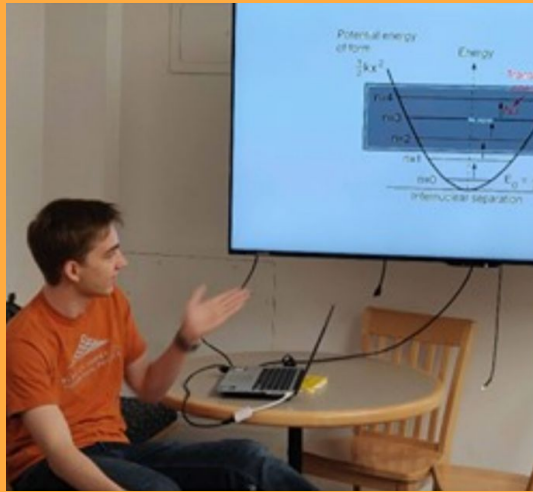
	M	Tu	W	Th	Fri
9:00	Sid Mal	Charlie	Wendy	Charlie	
9:30	Sid Mal	Charlie	Wendy	Charlie	Xuyang
10:00	Erika	Erika		ben	Xuyang
10:30	Erika	Erika	Carter	ben	Carter
11:00	Siddhant Meh.	Eden	Carter	Eden	Carter
11:30	Siddhant Meh.	Eden	Max	Eden	
12:00	Siddhant Meh.	Siddhant Meh.	Max	Nathan	Sid Mal
12:30		Rahul	Max	Rahul	Sid Mal
13:00		Rahul	Max	Rahul	
13:30		Jinze & Nico	Nathan	Nathan	Xuyang
14:00	Shantanu	Jinze & Nico	Kobe	Wendy	Xuyang
14:30	Shantanu	Jinze & Nico	Kobe	Wendy	
15:00	Shantanu	Jinze & Nico	Kobe	Nathan	Shaunak
15:30	Shantanu		Kobe		Shaunak
16:00	Ben	Shaunak			
16:30	Ben	Shaunak		International:	
Ends at 5 pm :)				Seoul Th 2-4	Yonna

Social Office Hours

Come any time. We're happy to chat or answer questions. (Physics or non-Physics)

Come to the SPS Room in Gather.





Academic UG Seminar

Every other Thursday
6:30-7:30 PM

Come listen to physics topics that fellow students are interested in or doing research in!

Want to give a talk? It's a perfect (& informal) opportunity to share what you love and practice giving presentations!



Meet Professors and see one of your many potential futures! Get to know the various careers and paths of the very professors lighting your way! (Maybe even convince them to offer you research so that you can light your own way!) And don't forget the lunches lighting the way to your stomach ;)

First event **12-1pm Wednesday September 29** with **Austin Hedeman**, RSVP forms will be sent in SPS weekly emails. Use the form to give us a headcount and to submit questions (We also have a live Q&A session!).



Faculty-Student Lunch (FSL)

*- come look for your favorite
physics stories*





Past stories we heard:

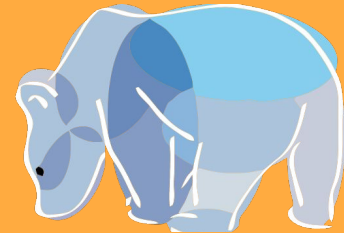
- A math major grew into an experimentalist professor
- Make a diamond with lasers (or cooler things) in one of the (secret?) National Labs
- How to not get Fs in classes

Everyone is welcome to join! You can ask random (but not too random) questions or just passively listen to people talk!



✓ They all had a happy lunch

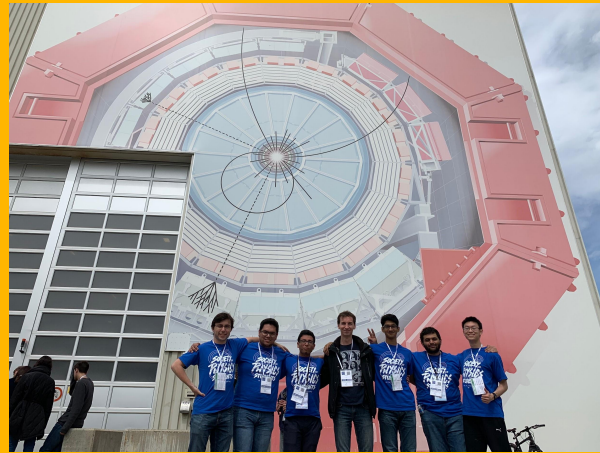
Faculty-Student Lunch (FSL)



US Physicists' Tournament

Selection for International Physicists' Tournament (IPT)

- Debate-Style Physics Tournament
- Incredible Physical Phenomena & Unrestricted Exploration!!
- **12/05-12/06** (virtual)
- Details Forthcoming (SPS Mailing List!)



Competitions

USPT

BPT

Problem of the
Week



UC Experimentathon

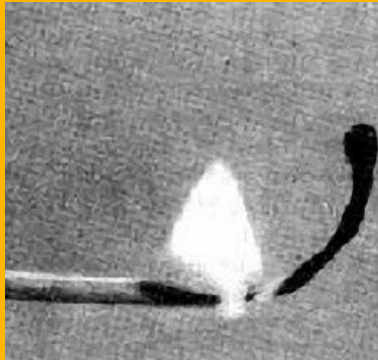
Short-Term Discussion-Based Physics Tournament

- Physical Phenomena, Unrestricted Exploration, New Friends!!
- **Cash Prizes!**

BPT1 Registration Deadline: 09/11/20

BPT1: 09/26/20

- 4x in year, 2 weeks to solve problem(s)
- Find Detailed Info & Sign Up on the SPS Website, Mailing List!



Competitions

USPT

BPT

Problem of the
Week



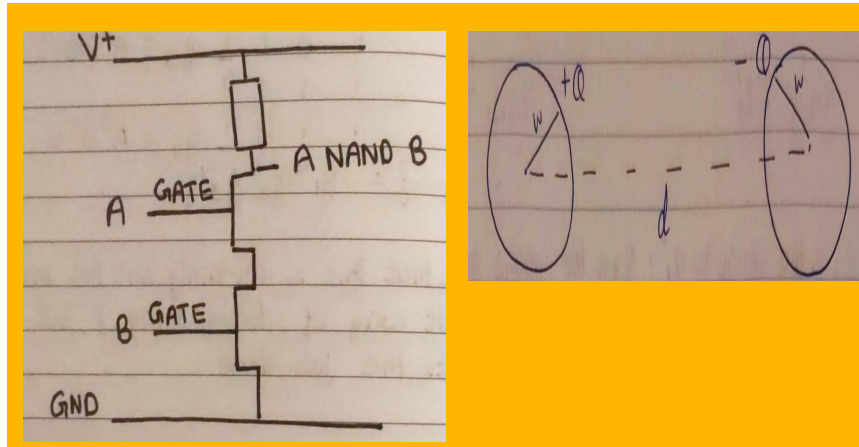
Problem of the Week

Mathematical/Physical problems to tickle your fancy

- **Cash Prizes & Website Fame!**

Find It on the SPS Website

- New Problem Every Saturday!



Competitions

USPT

BPT

**Problem of the
Week**



Upcoming Dates & Deadlines

What's Happening Soon?

Please come to as many events! We love seeing you there.

Get involved in SPS!

Items to sign-up:

Be a Mentor

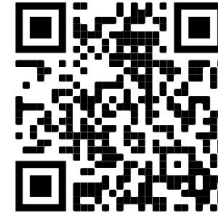


DUE 9/19

Web Dev committee



Projects committee



Outreach Committee



DUE 9/19

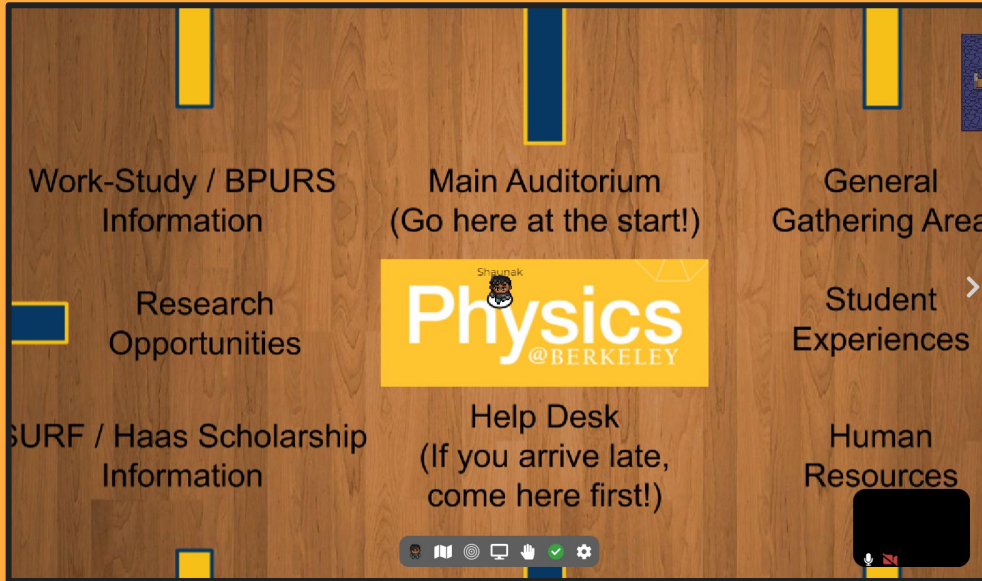
Be a Mentee



All info can also be found at SPS.BERKELEY.EDU

Physics Undergraduate Research Fair

Thursday 9/10/20, 4 - 6 PM



- Hosted on Gather
- Hear about undergraduate research experiences, funding opportunities, and available positions!





UG Seminar 6:30-7:30pm Thursday Sep. 16th

- First Undergraduate Seminar
- With Siddhant Mal
- FREE FOOD!!!
- Learn about Atomic Interferometry and how to find gold easier!



SPS BBQ 11am-2pm Friday Sep. 24th

- First SPS BBQ!
- Open to everyone
- Vegan options available
- Good opportunity to meet professors and other members of the community!
- Volunteer form will be posted early next week



This Week

1/1	Deadlines
9/11	BPT Registration
9/11	Be a SPS Mentor!
9/13	Be a SPS Mentee!

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
	7	8	9 6-7 #1Gen. Meeting	10 UG Research Seminar 4-6	11 Projects Info 6-7	12	13
	14 Outreach Info 6-7	15 Webdev Info 8-9	16	17	18 UG Sem. 6:30-7:30 BBQ 11-2	19	20
	21	22	23 6-7 #2 Gen. Meeting	24 FSL:11-12 Heather Gray	25	26 BPT1	27
	28	29	30	1	2 UG Sem. 6:30-7:30	3	4

Add the SPS Google Calendar from the website (sps.berkeley.edu)

Questions & Comments?

Ask away!

That's it for the 1st General Meeting!

In just a moment, we'll be moving to the *Gather* platform for a more, relaxed, get-to-know each other freeform session.

