

uwip at UC San Diego

UWiP March Newsletter

UWiP Mission Statement

Undergraduate Women in Physics at UCSD (UWiP) is an organization dedicated to promoting women and other underrepresented minorities in physics by connecting students to community support and providing academic/professional resources. Some of our most popular events include Coffee & Tea with Professors, Study Jams, Panels, Movie Nights, Women in Physics Presentations, and a lot more!

General Announcements

Important Dates to Save for Winter '21!

<u>Finals Week</u>: Saturday, March 13 - Saturday March, 20 <u>End of Winter Quarter</u>: Saturday, March 20 <u>Spring Quarter Instruction Begins</u>: Monday, March 29 <u>Memorial Day Observance</u>: Monday, May 31

WOMEN'S HISTORY MONTH

Happy Women's History month everybody! In observance of this national month to recognize women leaders, athletes, artists, and scientist we want to share with you the history of this national celebration! Women's history month started as a weeklong celebration in Sonoma, California in 1978, but the concept of recognizing powerful women in history spread to other communities across the country. With this growth in popularity and national attention President Jimmy Carter issued the first presidential proclamation in 1980, making the week of March 8th the first national Women's History week! In 1986 congress later expanded the event to an entire month! UWIP believes this month is a crucial time to remind us all of the important work women have done to progress scientific discovery. Annie Jump Cannon, the astronomer who revolutionized star classifications; Wang Zhenyi, an astronomer and mathematician whose writings influence legions of scientists even after her death; and Ada Lovelace, the first person to create a computer program are just a few of the notable women in science whose influence continues to impact the **scientific** world today!

BIG CHANGES WITH UWIP: MIIP (MARGINALIZED IDENTITIES IN PHYSICS)

What's Happening to UWIP?

Since 2014, UWIP has been dedicated to supporting and promoting women and other underrepresented groups in physics. Though this remains central to our purpose, we must also acknowledge all marginalized communities that face systemic barriers in academia. These groups include, but are not limited to: Black, Indigenous, and People of Color (BIPOC), LGBTQIA+ folks, neurodiverse, and (dis)abled people. We recognize that there are systems of oppression that must be undone so that all people regardless of identity are empowered to achieve their goals. Embracing the idea that intersectional identity is not additive, but fundamentally reconstitutive, charges us to shift our perspective in how our organization fights against, and brings awareness to, the compounding systemic inequities that marginalized groups face. This evolution of UWIP to MIIP will be a better way forward in supporting diversity, equity and inclusion in our field, as well as throughout academia and society.

MIIP Mission Statement

Marginalized Physics is an organization dedicated to empowering women, Black, Indigenous, and People of Color (BIPOC), LGBTQIA+, neurodiverse, and (dis)abled groups in physics through an intersectional resource network, academic and professional development, and by creating an equitable and accessible community for all. "We" are committed to reducing the systemic barriers faced by marginalized students to foster diversity and inclusivity in physics.

You will still be able to contact us via uwip.ucsd@gmail.com, uwip.ucsd.edu, uwip.ucsd on Instagram, and UWIP on Facebook but we will gradually be making this transition from this point on.

UWIP/MIIP BOARD APPLICATIONS

Are looking to be apart of the UWIP/MIIP 2021-2022 Board? And help support historically marginalized groups? Well the UWIP/MIIP Board applications are here!

What kind of new board **members** are we looking for you might ask, these are some qualities that make you the perfect candidate:

- loving physics and getting to know your physics community
- supports and allies with historically marginalized groups (Black, Indigenous, and People of Color (BIPOC), LGBTQIA+ folks, neurodiverse, and (dis)abled people)
- is driven to see UWIP/MIIP grow and succeed!

An official email will be sent with further details, but since you're here you get the exclusive 1st look! UWIP/MIIP Board Applications will open this **Friday**, **March 5th at 12p of Week 9 and will close Friday of Week 2 of**

Spring quarter, April 9. *This gives you time to apply over spring break!* Note that if you could not attend this weeks Info session on Monday, no worries, you can check out those slides with application information <u>here</u> and on our <u>website under Board Application Info Session</u>. We will also be holding a GBM early spring quarter to go over the application and answer any questions before apps are due. When the **application** opens on Friday, you will be able to access the link <u>here</u>. We look forward to your application and if you have any questions always feel free to email us <u>uwip.ucsd@qmail.com</u>.



End of Winter '21 Survey

Please let us know <u>how we did and</u> <u>what you want to see</u>! Which events did you enjoy and how are feeling about UWIP becoming MIIP?

All Events Flyer

Here is our detailed Winter 2021 flyer with an exclusive look at some events you can expect in the coming weeks. As always, the details for each event will be on the UWiP website, emailed, and posted to our Instagram. We hope you are as excited for these events as we are!

Member of the Month Shoutout!

Every month we will be doing a **"Member of the Month Shoutout"** based on participation at UWiP events! We love having each and every one of you attend, and engage with our community. This is how we like to say thanks for all you do!

This month we have our board member, **Angela Hinton**! Angela has contributed greatly to UWiP and we can always count on her to get the job done! Plus she's graduating! Get to know one of our fellow physics majors, Angela, a little better! **Q:** What UWIP event have you enjoyed most so far this quarter?

A: Community Game Social! It's great to laugh and connect with fellow physics students, especially in the age of remote learning.



Angela Hinton

Q: What are some of your favorite hobbies, aka what do you like to do with your free time when you're not studying physics?

A: I'm a sucker for a good story, so I love to read and watch movies. Most days I try to catch one of our gorgeous San Diego sunsets, and my cat, Mr. Gatsby, gets the lion's share of my remaining attention. Q: What is one thing you are looking forward to after graduating from UCSD?

A: I can't wait to find out what I'm capable of with all the knowledge I've gained in my toolbelt. Physics is everywhere, it's in everything, and our opportunities to learn and grow don't end with graduation! Biophysics B.S., '21

Q: And lastly, do you have any advice for you fellow physics majors when it comes to getting through the rigorous coursework?

A: Remember how extraordinary you truly are! What you are taking on is huge and immensely challenging, but just by being here you are accomplishing something incredible. Try to stay organized and trust the process, you'll be amazed to discover the strength and brilliance you possess!

MARCH EVENTS

Below you will find all the UWiP events and their details for the month of March! Keep up your studying but don't forget to take a break and get to know your UWiP community and all our organization has to offer for our fellow peers interested in physics!

FINALS STUDY JAM: Sat March 13, 2-7PM



Finals season is creeping up so get your study jam on! We're hosting a Finals Study Jam the Saturday before Finals Week so we can prepare for exams together.

We'll be using breakout rooms to organize study sessions and we'll have upperclassmen around to help out with lower-division classes.

Weekly Board Meetings



If you are interested in planning future events or just getting more involved, consider attending some of our weekly board meetings. UWIP Board Applications are coming up and we would love to have your input! Email us for meeting details or feel free to reach one of our Co-Presidents, Trinity (tcarrasc@ucsd.edu) or Mikaela (mmlarkin@ucsd.edu).

PHYSICS AT UCSD

New Month, New Exciting Opportunities!

The end of Winter quarter is within reach, physicists! Facing final exams is always overwhelming, but take a moment to be proud of everything you've done these last weeks. Pop into a seminar for a boost of motivation, and check the amazing Department resources for answers to your questions and opportunities for your future. Good luck to you all!

Explore Your Resources!

Google Calendar with up-to-date information on undergraduate events and opportunities in Physics.

Events and Opportunities

For visual types, this folder contains fliers and important reminders for Physics opportunities both on and off campus!

Opportunities Folder

For the most complete and current information on seminars and colloquia, check out the Physics Department Seminar Calendar.

Physics Seminars

If you've got questions, the Physics Department Handbook is here to help you find answers!

Department Handbook

Featured Seminars

Astrophysics Seminar: "Turbulence vs. Magnetic Field: which one is more important in the modern picture of star formation?" Che-Yu Chen, Research Scientist, University of Virginia

- Wed 3/10 at 3:30 pm
- Abstract available here
- Zoom link: https://ucsd.zoom.us/j/92335013501

Physics Colloquium: "Quantum Computational Supremacy"

Prof. Scott Aaronson, UT Austin

- Thurs 3/11 at 4pm
- Abstract available <u>here</u>
- Zoom link: <u>https://ucsd.zoom.us/j/93730100055?</u> pwd=eFl2ZGw5WExKSU1JSy9lbXp1ZGxXUT09

Stay Inspired, Tritons!



Women in Physics News



Postage Stamp Honoring Chinese-American Female Physicist!

It is a rare honor for a scientist to appear on a commemorative postage stamp, but if anyone is deserving of such honor it is the late Chinese-American nuclear physicist, Chien-Shiung Wu (1912-1997). Wu played an integral role in the demonstration of parity violation in weak force interactions, a feat unimaginable given that physicists in the 1950's assumed parity conservation in all four governing forces of the universe: gravity, electromagnetism, strong force, and the weak force.

The idea that parity might not hold in weak interactions was first theorized by physicists Chen Ning Yang and Tsung-Dao Lee. They wanted to show that a spinning nucleus that undergoes beta decay might result in an emergent electron that is more likely to go towards one direction relative to the nucleus' spin, than the other direction (as in right handedness vs. left handedness). If this could be shown experimentally then parity violation would be proven and that would <u>mean the universe, in some way, has a</u>



directional preference. Another way to interpret this is that a "mirrored image" of the universe would be distinguishable from the original, something that came as a surprise to the physics community at large.

That is when Yang and Lee requested the help of Wu in 1956, who worked with colleagues at the National Bureau of Standards to execute this experiment. Wu suggested using a radioactive cobalt-60 sample which was then placed in a strong magnetic field and cooled to near absolute zero, it was found that there was a strong correlation between the direction of the emitted electrons and the spin of the cobalt-60 nuclei. The weak interaction in fact had a "handedness" and parity violation was proven!

The 1957 Nobel Prize in Physics was only granted to Yang and Lee for the theoretical framework and Wu was left out despite designing the experiment that proved their theory. Despite this, she was finally recognized in 1978 when honored with the Wolf Prize, and now posthumously she is honored with a beautiful stamp! You can purchase the stamp here: <u>Chien-Shiung Wu Stamp</u>

Not only during Women's History Month, but every month we honor the amazing Woman in physics and STEM who inspire us and hopefully they can inspire you too!

Source credit: https://www.sciencemag.org/news/2021/02/postage-stamphonor-female-physicist-who-many-say-should-have-won-nobel-prize

Thank you for checking out our newsletter and we hope you enjoyed it. We love hearing from our general members, so don't hesitate to reach out! If you have any suggestions, questions, or would like to contribute to our newsletter team just send us an email at uwip.ucsd@gmail.com. If you loved our newsletter and would like us to feature an event of yours or you have some cool info to share for next month's newsletter, please fill out this <u>form</u>.

VISIT UNDERGRADUATE WOMEN IN PHYSICS (UWiP):

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