



Figure 1: This is a picture of the Student Astrophysics Society homepage. For more information, please visit; <https://www.studentastrophysicsociety.com>.

Seeking More Aspiring Young Astronomers for a Newly-Formed Student Astrophysics Society

By Tarun Kota and Clinton Pan
(Student Astrophysics Society)

When we got to high school, we noticed a lack of interest in space among our peers. It seemed like we were the only people interested in the entire school. We eventually realized that this wasn't because of lack of interest, rather it was due to lack of exposure and support for those interested in astronomy. This was the aha moment for us and sparked our desire to create our student astrophysics society. We wanted to create a platform to give astrophysics opportunities to our classmates as well as connect space enthusiasts across the world. We hoped this would jumpstart astrophysics interest in our school and across the world.



Figure 2: This is a picture from the January 2021 meeting where the Student Astrophysics Society hosted a lecture by astrophysicist J. Davy Kirkpatrick (Caltech).



Figure 3: A picture from our group's expedition to Eagle Lake Observatory, owned and operated by the Minnesota Astronomical Society.

The Student Astrophysics Society is composed of 100 students from across the globe. Our goal is to create a place where students interested in astrophysics can develop their passion. We host monthly lectures with astrophysicists and professors discussing different topics. Along with our lectures, we also host book club meetings. In the book club we choose an astrophysics article or book and discuss contents we don't understand. The optional book clubs help expand our scientific vocabulary and expand our knowledge on different topics in the realm of astrophysics. Finally, we connect our members to research projects or citizen science programs. One research project that two members have collaborated on has recently gone into peer review, and we have multiple other members in different citizen science programs.

The future of Astronomy will be spearheaded by Gen Z. Unfortunately, with the rise of technology, the younger generation has spent more time looking at a screen instead of looking up at the stars. Thus, we're motivated to increase Gen-Z interest by illustrating the beauty of the cosmos. In addition, we are hopeful for a world, where access to Astrophysics education is democratized. As two public school kids, we know firsthand how access to research is often given to well-funded private schools. However, through our society, we hope to alleviate this problem by giving access to research opportunities to individuals regardless of socioeconomic status. Although we've made strides in equality recently, there's still a lot of work that needs to be done. Thus, we're calling all young space enthusiasts to join our society, and push for equality in astronomy.

Q&A with Tarun and Clinton:

Editor: How has being at home so much during the current pandemic helped or hindered your efforts with the Student Astrophysics Society?

Both: Being at home has been critical in the skyrocketing (no pun intended!) growth of our society. With everyone being at home, we were able to coordinate meetings a lot easier. Before we were only able to meet with people in the Twin Cities. But with the spread of platforms like Zoom, we now can conduct meetings with people all around the world! Professors are also more willing to take on students for research, because the location of the student is no longer a factor given that most research labs are online right now. This has allowed us to introduce students into upcoming research and give them the opportunity to publish papers.

Editor: What are your personal ambitions for college and beyond?

Tarun: In terms of career goals, I see myself pursuing two paths. First, is running my own research lab. I would

be at the forefront of astrophysics research and work on developing methods to better detect extrasolar planets. I would also be interested in mentoring high school

students like me in order to drum up interest in high school science research. Secondly, is pursuing education policy and advocacy. This would entail working with legislators to develop methods to democratize access to science education. My dream job would be to become America's secretary of education and lead our education program to the stars!

Clinton: In college I would like to major in physics and applied math. I hope that with my physics degree I will be able to partake in groundbreaking research

and work on new projects looking into the colonization of our solar system. I am looking forward to continuing to build our society by offering new research opportunities and connecting high school students with college mentors. My long term goal is to build connections with professors and colleges in order to make research fair and equitable for all students no matter their background.



Figure 4: Clinton Pan and Tarun Kota, left to right.

About the Authors:

Tarun's Story:



My story into Astrophysics has to do with the Minnesota wildlife. Minnesota's motto is the land of 10,000 lakes. Thus, it has thousands of parks, animals and most importantly camping sites. I spent a lot of my childhood camping across Minnesota soaking in the wildlife of Minnesota. Whenever we went camping, our family would try to spot

as many constellations as we possibly could. Although we started off being able to name only a few, eventually we were able to name all of them. Those experiences are what attracted me to learn more about astronomy and physics.

As I got older, I pursued this interest further. My middle school didn't have many opportunities to pursue astrophysics, thus I pursued it out of school. I went stargazing at local observatories, read space magazines and took online courses. In high school, although there weren't many opportunities in school, I was able to get involved in science research. Through the citizen science organization Backyard Worlds, I was given the opportunity to research brown dwarfs. These experiences allowed me to attend science competitions such as the International

Science and Engineering Fair, and solidified my interest in becoming an astrophysicist.

Clinton's Story



My passion for astrophysics first blossomed when I watched a NOVA episode on the Higgs Boson with my brother. They outlined how the Higgs Boson gives mass to all other particles, earning it the nickname the "God particle". Since then, I have been obsessed with trying to understand how the universe works. Throughout

middle school, I didn't have many classes that focused on physics or astronomy, so I decided to embark on my own adventure on the internet. I started to read articles and new discoveries in the realm of physics and with that came my interest in competitions. Starting in 8th grade, my brother told me that I should look into the West Metro Physics team in order to start working on physics problems. I immediately loved trying to solve the different competition problems, and I would work on these for hours on end. Along with the problems, the physics team also allowed me to realize the importance of collaboration and multiple perspectives. Through this passion I came together with Tarun and we started the Student Astrophysics Society.



Join the Astronomical Society of the Pacific (ASP) November 18-20 for ASP2021: Virtual Conference - Sharing Best Practices in Astronomy Teaching and Public Engagement.

We had an amazing 1st Virtual Conference last year (ASP2020), and by popular demand we're offering another online conference. If you missed ASP2020, you won't want to miss this one, and if you were with us last year, you know you'll want to reconvene with your colleagues you met from around the world, update folks on what you've been working on, and learn about best practices, innovative ideas, lessons learned,

research findings, and evaluation results from our global community.

Recognizing that we still face the challenges of an ongoing pandemic, we invite K-16 educators, scientists, science communicators, and public engagement professionals in astronomy and related fields to join us all for this ASP2021 Virtual Conference to move toward a better future. Whether you teach astronomy to students, engage the public in astronomy live or online, or design astronomy learning experiences, the virtual 133rd Annual Meeting of the ASP can't be missed!

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