

Sophia Youhan Zhang

Pine View School, Sarasota, FL

Grade: Freshman

Hobbies: soccer, learning about plants, painting, listening to music, reading books, watching animations

Club: inteGIRLS member

Contest/Competition Experience or Honors: USAPhO (2023)

Biography:

My first encounters with physics were likely from watching YouTube about black holes. At the time I was awed by how black holes could bend space and even attract light, but I was also completely baffled. The younger me ended up thinking subjects like black holes, and other subjects like relativity and whatnot were the things top scientists studied, and I would probably only ever be able to appreciate watered down versions of their work. Well, I was definitely not expecting how things would turn out.

I loved soccer in primary school and played in Irvine Slammers FC. Soccer game gave me a lot fun. In middle school, I began to see the beauty of math, and started learning ahead, going through multiple math textbooks in short period of time. Although I haven't achieved much in math competitions (which I plan to change). In the summer of 2022, I was introduced to physics.

I found physics amazing, as I could now begin to understand how the universe worked. Coincidentally, in history we were learning about the Enlightenment and how Newton came up with his three fundamental laws. Newton's ideas created a new way of looking at the universe and people started looking at it "as one huge, regulated, uniform machine that worked according to natural laws," (quoted from our History textbook) and they were probably amazed as they saw the mysteries of the universe, which had seemed so unfathomable, unfold before their eyes. And now, about three and a half centuries later, as I sat at my desk learning physics, I felt the exact same way those people had probably felt.

I was able to learn physics pretty quickly, (maybe because I had established a good foundation in math, or maybe it was just because I was really enthusiastic and spent a lot of time, and I surely had a really awesome teacher) and I finished mechanics in about five months, prepared for the $F=ma$ for about two months, and passed. Although there were quite some ups and downs in the process. After that, I went over some EM, relativity, and thermodynamics, crossed my fingers for good luck, and attended the USAPhO. Afterwards I found that I had qualified for the US physics team, which was quite a surprise, albeit a pleasant one.

Now I feel very honored that I've been invited to the US physics team, and I can't wait to meet the other campers in person! Finally, I'd like to thank my parents for their continual support and encouragement. I'd like to thank Dr. Liu who gave me her enthusiasm for physics. I'd like to thank Dr. Tang for teaching me EM, and I'd like to thank Professor Walter Lewin at MIT for his fun-filled physics lectures (truly classic). And last but not least, I'd like to thanks Mr. Nzeza and Mr. Siegel in Pine View School for their help in registering and proctoring my $F=ma$ and USAPhO exams, as well as guiding me in the AP physics lab.