Collin Fan: Grade 12

Hobbies: Binging SpaceX live streams, basketball, piano

Clubs: Math Team, Statesman newspaper, Peer Tutors, Physics Club, Baroque Ensemble, Freshman Mentor Program

Experience: IPhO Silver Medalist (2022), AIME (2020-2023), USAAAO NAC (2022-2023), M3 Challenge Finalist (2022-2023), Physics Brawl 1st Place (202), Presidential Scholar Semifinalist (2023)

Autobiography: Stuffed into an Economy class seat, with the guy next to me spilling his coffee all over the floor, and the baby two rows back screaming its way through the air, I couldn't have been happier.

During this flight I took last summer, I was as giddy as a 5-year-old on their birthday from the moment the engines powered on. Unfazed by the lack of in-flight entertainment, I spent the flight gazing at the physics experiment unfolding out the window. The wings flexed and danced with Newton's laws to keep us afloat in the air. Condensation blanketed the smooth surface of the wings, wisps of delicate mist governed by Bernoulli's law. As we banked in a turn, the wingtips piercing straight into the smooth blue sky, I sat firmly in my seat instead of tumbling into the aisle—the marvelous effect of non-inertial reference frames.

A decade earlier, I was obsessed with a different type of plane. My second-grade self would spend weekends creating one fold after another in pieces of blank white paper, in awe by the empty canvases of endless possibilities. When I threw my paper planes down the slope in front of my home, I would watch as some glided gracefully through the air while others took a direct nosedive into the pavement. For years, even as I innovated my airplanes to fly longer and faster, why they flew always remained a mystery.

In the early days of the pandemic, I finally found an answer. Quarantined and impossibly bored, I pulled a dusty physics textbook out of my cabinet and started flipping through the pages. Initially, I had no clue what I was reading; but as I continued, examining theorems and analyzing figures, the laws that governed the world around me began to materialize. Soon, I knew why the wind blew, why a stream of water from a tap narrowed as it fell, why I felt the crunch of frost under my feet on chilly fall mornings. And as I read, I learned that the mystery of flight that had puzzled me for so long wasn't a mystery, after all—it was physics.

Physics opened my eyes to the world, and I'm not looking back.

A huge thank you to Ms. Ruda for supporting me throughout my physics olympiad journey. Also, I am infinitely grateful to Ms. Edstrom, my physics teacher, for showing me that there's so much more to physics than meets the eye. It's an honor to be apart of this amazing physics community, and I can't wait to meet everyone at camp!