

Sydney Spangler '28

DESY Internship in Zeuthen, Germany
Winter Break 2025

This past winter break, I gained the opportunity to work as an intern at DESY Research Center in Zeuthen, Germany. I worked in the Astroparticle Physics Department developing a thermal model for a camera on a CTAO telescope. CTAO, the Cherenkov Telescope Array Observatory, is a project building a set of telescopes that will track gamma-ray data across a wide energy range. With 60 telescopes split between Spain and Chile, this array will allow for unprecedented resolution of the sky.

I spent four weeks working under Dr. Gianluca Giavitto in the Zeuthen DESY office. I created a thermal model that estimated the temperature of different camera components. I incorporated external factors such as wind chill and ambient temperature. My final step was to compare my model to experimental data from a camera test run. During my time at DESY, I also travelled to CERN for a weekend in Geneva. There, I met with several physicists who toured me around, discussed their path with me, and gave me insight into next steps in my career.

My time in both Germany and Geneva gave me insight into my goals as a physicist and researcher. Working with people across cultures, from Germany, Spain, Russia and Italy, I better understand the global extent of scientific pursuit. Although I came from a very different background as an American undergraduate, I connected with my coworkers through a shared love for research.