

NO-JARGON TALKS

The Outreach Task Force is proud to present the Physics No-Jargon Talk Series. These biweekly talks will feature the **cutting edge research at UCSC and beyond**, delivered without using the difficult jargon we often find in conference talks and scholarly articles. The talks are particularly geared towards **first and second year students!** We arrive 15 mins before 2PM to chat and network. If you are interested in learning more about the research of your grad and undergrad peers, seeking research opportunities for, expanding your network, or presenting your own project, find us on Zoom at this URL: tinyurl.com/nojargontalks **on THURSDAYS from 2-3PM PT!**

Yasha Kaushal Upcoming Speakers 4/22



Peeping into the Past of Galaxies

The light which we receive from our night sky is not only coming from beautiful planets in our Solar System and tiny twinkling stars in our Milky Way, but also from numerous distant galaxies in our Universe, traveling for billions of years to reach us, providing glimpses of different epochs of large-scale cosmological evolution. This light has a plethora of information about dynamics and properties of galaxies in the young universe and most interestingly, has signatures of its past activities! I will talk about how we can analyze this light, what we can unveil from this analysis (past of the past?), why we need to look back in time in the first place and how we can connect this to what we see in the present!

Pierce Giffin



Particle Physics Phenomenology: Should We Build New Detectors?

As the Large Hadron Collider continues to operate, we are finding less new physics from its data. Lots of new theories are being proposed to help describe our universe at a fundamental level. In the process of attempting to find new physics, researchers propose to build new particle detectors to probe deeper into the unknown. But what are these detectors actually capable of discovering? I have worked to determine what new constraints could be placed on a specific dark matter model involving a dark photon at proposed future experiments such as the Circular Electron-Positron Collider, the International Linear Collider, and the Future Circular Collider.