

## **Teaching philosophy:**

One part of me deciding to become a physicist was that I always enjoyed explaining complex topics. To teach is an integral part of being a scientist as it's important to not only pass on the knowledge and understanding of our field but also the fascination and enthusiasm we feel about our work. This should extend not only to students at universities but also to the broader public in order to enhance their sympathy and acceptance of science as well as to children in schools to promote attention to and interest for physics and science in general.

When it comes to teaching students, I often feel that in physics too much emphasis is placed on 'how can we calculate that'. That is understandable as it is important for students to learn it and we in our daily work as scientists often have to rely on calculations. But I feel it is also important for a student to understand the connections in physics, to remember a scientific model and to be able to draw principle conclusions from it, rather than just to memorize a huge number of formulas and how to extract the wanted parameter from them. The lessons I remember best from my time as a student are impressive experimental demonstrations, or e.g. when I finally understood the idea behind and consequences of the particle-wave-duality, and not just the de Broglie equation. Of course it's more challenging to strive for a deeper understanding in students like this (and much more difficult to test in exams), but I think in this case the benefit justifies the effort.

I have two semesters of experience as a teaching assistance during grad school. I have ample of experience in mentoring and instructing grad students, both during my later grad school years and my time in Santa Barbara as well as in Dublin, and I've worked on research projects with and mentored undergrads from the US, Japan, Ireland and Italy. As I have been on a J1 visa in the United States and these forbid to work on anything outside the exact project the visa is granted for, I unfortunately could not gather further practice in teaching bigger classes in California. Currently I am still looking for an opportunity to enhance my teaching experience in Dublin, and I'm sure I will enjoy it.