



GETTING TO KNOW TEQ'S MEMBERS

Name: Chris Timberlake

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Profession: Post-doctoral researcher

Age: 27

How did you choose your field of studies?

For as long as I can remember I have been interested in science and nature, and really enjoyed learning about science in school. When I was about 13 years old, I got a really good physics teacher, who definitely had a huge influence on me in terms of my career choice; from the age of 14 or 15 I was sure I would go on to study physics at university, and the quality of his teaching and the interest it inspired was a big part of my reasoning. After completing my undergraduate studies, it was clear that I wanted to continue learning more about physics, and I was lucky enough to find the PhD in the group of Hendrik Ulbricht.



Can you briefly introduce yourself and your work?

I am an experimental physicist from the United Kingdom, currently working as a post-doctoral researcher at the University of Southampton in the group of Hendrik Ulbricht. I also completed my undergraduate and post-graduate studies at Southampton. Primarily, my work is focused on levitation of ferromagnetic particles with type-I superconductors. These levitated magnets behave as very well isolated harmonic oscillators and can be used for sensing as well as for probing fundamental physics questions.

Chris Timberlake pictured atop the famous Duomo di Milano



What do you mostly like about your research? What are the challenges?

What I like most about my area of research is that the field I work in is relatively new, and relatively small, so the path with which to follow has not yet been defined, meaning that I have a lot of creative freedom about what questions we can try to answer, and how we can go about exploring these questions. As it is such a new field, there is room for a lot of growth and interesting physics to be explored within the next few years. The challenges of such experiments can be that you can feel stuck in the same place for a long time, on occasion, where you can't quite realize the next large step, despite how very close it seems. Never has this been truer than during the pandemic!

What advice would you tell students who want to become scientists in the future?

I can only offer advice that I would likely give my younger self from my personal experiences, but I would say to not be afraid to change the direction of your experiment/research if you find that you are not getting anywhere with it. Specifically, for me, as a PhD student, I had an experimental idea which had been conceived before I joined the group, and I tried to develop the experiment in this direction. Eventually it became clear that this direction wasn't the right one, so it was vital for the success of my PhD to somewhat change direction. I guess the advice could be summed up by being adaptable.