

Testing the large-scale limit of quantum mechanics

GETTING TO KNOW TEQ'S MEMBERS

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Profession: Post-doctoral researcher

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How did you choose your field of studies?

I always wanted to understand nature on a more fundamental level, and studying physics gave me the opportunity to get a glimpse of what there is beyond our daily experiences. Before I started, a professor suggested studying philosophy instead, and I was surprised about his suggestion at the time. Today I appreciate that the physical understanding of our surroundings is only a small (but intriguing!) part of the whole picture.

Can you briefly introduce yourself and your work?

I grew up in southern Germany where I also studied physics at the University of Freiburg. After my PhD in the Ion Trap Group of Michael Drewsen in Aarhus, I decided to stay in Denmark as a post-doctoral researcher.

Within TEQ, I'm working on a new cryogenically cooled ion trap, in which we will trap large molecules, like proteins, to explore an intermediate regime between the single atom and trapped nanoparticles.







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



Photo of a 650nm laser beam path used to laser-cool barium ions. Photo by Lars Kruse, AU

Working in an experimental physics lab is a guarantee that no day is like the previous. Almost every day, you will have to deal with a new challenge you have never tried before (and maybe no one else ever has!). This makes the work very interesting and never boring but at the same time requires a lot of initiative and persistence. The process to success can be frustrating, but most times the work is rewarding and fun in the end.

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

Just like working as a scientist, studying science can be challenging and frustrating over some time, but it is worth it to hang in there!

Becoming a scientist is a transformation of your way of thinking, which goes beyond the research, but also affects your way to see the everyday world through a scientist's eyes. Personally, I find that science is enriching my life in these regards.