

Testing the large-scale limit of quantum mechanics

GETTING TO KNOW TEQ'S MEMBERS

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Age: 31

How did you choose your field of studies?

I was always fascinated by how things work, and I was constantly trying to understand why. I was good in math and science, but the real deal came during the last year of high school. That was the first time I got my hands on a book on quantum mechanics (G. Gamow, *Thirty Years That Shook Physics: The Story of Quantum Theory*). While waiting for the physics lecture on electromagnetism to start, I was reading the book's introduction. And that was it: I was that into the riddles of quantum mechanics that I did not realize the lecture had started until we were halfway through it.



Matteo Carlesso, theoretical physicist, Postdoc at the University of Trieste.

Can you briefly introduce yourself and your work?

I am a theoretical physicist mainly working on the foundations of quantum mechanics and collapse models. I always work with an eye on the experiments, mainly optomechanical ones, and how to exploit them to test quantum mechanics and its alternatives. I got my PhD at the University of Trieste (Italy), where I currently have a Postdoc.





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

I like the sensation of being surprised by something unexpected as a counterintuitive result or one that you never would expect. As a child seeing a magic trick: it's fascinating and intriguing, and you want to understand how it works.

There are many challenges, mainly arising when one tries to put together different highly specialized research fields. It is even more complex when one wants to put in the same picture theoretical investigations with complex experiments.

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

Being a scientist is quite a bumpy ride, full of challenges of a different kind. My advice is to keep remembering what you like about science and hold firmly on to that thought. Try to find out your method to face the always new experiences and challenges science will have for you. The study, hard work and experience will help you, but the real engine must be your passion.