GETTING TO KNOW TEQ'S MEMBERS

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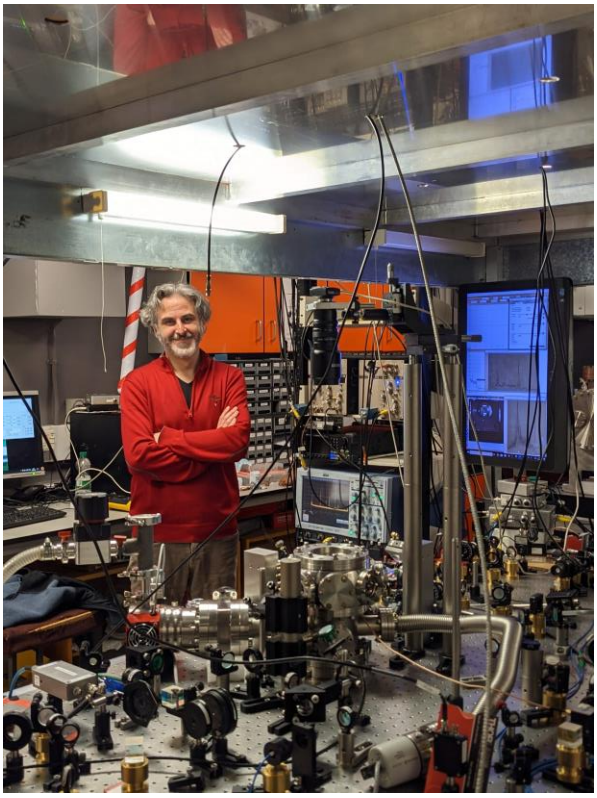
How did you choose your field of studies?

Early on I had a very a-typical career path. I interrupted my studies after my bachelor's degree only to take them up a couple of years later. All the while, I ended up working on and off in a research laboratory. When I started my Ph.D. I already had a bit of expertise in cryogenics and electo-mechanical sensing; however, I was looking for a project that was different enough to be challenging but not too different so that I could exploit my previous experience. The topic that best fitted this description was optomechanics. It turned out to be a good choice since I work in the same field today.

Can you briefly introduce yourself and your work?

I obtained my Ph.D at the Univ. of Trento back in 2014 with experimental work in the field of cavity optomechanics. Most of the activity, however, took place in Florence in the group lead by Prof. Marin. I moved there after the Ph.D. to continue working on the same project. I came to the UK in 2016, thanks to a Marie Curie fellowship, to work with Prof. Barker on levitated Optomechanics.
The projects I work on mainly focus on uncovering the fingerprints of quantum mechanics in the dynamics of macroscopic oscillators.



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

As is often the case, we need to constantly improve the experiments to achieve a given goal. This requires gathering a deep understanding of each and every part of the experimental setup in order to isolate where there is room for improvements. I like this details-oriented process which focuses more on techniques and technology. However, what I find most rewarding is that the underlying motivation has roots in fundamental physics.

Antonio Pontin in Prof. Barker (UCL) lab with an overview of the levitated cavity optomechanics experiment.

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

In a single word: move. In the early years of your career it's important not to stay in the same place. Even if you want to continue working in the same field, after a few years move to a different research group even better if in a different country. You will find colleagues with different backgrounds and usually a very different approach to research. When it will be your turn to lead, you'll be better prepared for it.