

There are **many ways** to help each other

Within Delta ITP, scientists can join forces to get a step closer to unravelling the great mysteries of the universe. **Elisa Chisari**, **Alessandra Silvestri**, and **Samaya Nissanke** work together on questions of gravitational waves and the expansion of the universe.

Text: Marleen Hoebe
Photos: Bob Bronshoff



ELISA CHISARI

Cosmologist and lecturer at Utrecht University

'The projects that Alessandra, Samaya, and I are working on are still in the early stages. Alessandra and I started a project with Tomislav Prokopec, cosmologist at Utrecht

University. The goal of this project is to research the expansion of the universe using a quantum model that Tomislav has created. Samaya and I are involved with a group of Dutch scientists in the Legacy Survey of Space and Time, a ten-year international study. This will take place at the Vera C. Rubin Observatory in Chile, which is cur-

rently under construction. We hope this research will lead us to the properties of the mysterious force that drives the accelerated expansion of the universe.

These days, a scientific article is rarely the work of a single author. Good research requires more than an original idea. The tools to move the research forward are also important. When we talk to each other, we can come up with ideas. And by combining our areas of expertise, we're able to get those ideas started.

We also help each other in other ways. For example, we ask each other questions about our projects to be sure of the robustness of our results. I also see Alessandra and Samaya as role models who can help me on my way in the Dutch academic world. I came to Utrecht two years ago, just before the pandemic. With their help, and thanks to Delta ITP and the contacts I had previously made at Leiden University, I was able to become well embedded in the scientific landscape of the Netherlands.

Collaborating with different research institutes is enriching. First, discussions among institutions stimulate the conception of new ideas that often result in scientific projects. Our monthly theoretical cos-



By combining our various areas of expertise, we can address the very challenging questions that we face in cosmology, and more generally in physics and astronomy. There are many ways to help each other. Through joint group meetings, for example, we learn from each other's styles. And in personal discussions, we can advise each other on many aspects of our work, including the difficulties that we face as young mothers trying to balance scientific careers with family lives. Also, I will never forget the support I received from Samaya when I applied for the Vidi grant from the Dutch Research Council.'

SAMAYA NISSANKE

Astrophysicist and senior lecturer at the University of Amsterdam

'The physics institutes in Utrecht and Leiden both focus on research areas that we are working on in Amsterdam. As a result, it's not only a pleasure to collaborate, it's crucial. It enables us to develop new ideas and methods and ensure cross-fertilisation.

For me personally, our collaborations are important because I have learned so much from Alessandra and Elisa, both scientifically and personally. Their expertise complements mine and provides new perspectives and insights. It's also a pleasure to work with them; they are inspiring and belong to the new generation of leaders in their field. They're great people. You can see this in their research groups and the fun they have in physics.

I think it's always an advantage to have colleagues who support you. It's a privilege to be part of academia. At the same time, it can also be tough and challenging.

'By combining our expertise, we can address challenging cosmology questions'

I assumed that once I was hired for a tenure track (a career path leading to a permanent position - ed.) many challenges would disappear. But now I face a new set of challenges. For me - someone who became a mother at a critical point in her career - it has been so helpful to work with women who are in similar phases in their careers and to whom you can vent. In retrospect, the first two years of motherhood were a struggle and that time passed in a blur. But it was also great, and it meant a lot to me to share these experiences with Alessandra.' ■

