

Particle Interactions

Cristina Lazzeroni and Particle Physics for All

Fellowships

Creating leaders in engagement

“I wanted to share the excitement of science,” says Cristina Lazzeroni, of the University of Birmingham, who was supported by STFC with a Public Engagement Fellowship. “I had a vision to present research from school students on an equal footing with results from the LHC.”

Cristina’s Fellowship saw her work with students, teachers, and university researchers to create highly credible research projects that were driven by the students themselves. The research encompassed cosmic rays, computer simulation, data analysis, and particle detection – the students worked closely with their teachers alongside Cristina and her research colleagues at the university.

By working with Cristina, the students improved their confidence, problem solving skills and opened their eyes to new career paths. Cristina also worked closely with local primary schools and secondary schools, developing a range of particle physics teaching resources that are tailored for different student ages.

Evaluating the outcomes of her Fellowship was important to Cristina, even after the initial activities ended. Every teacher and involved student reported at the time that they benefited from, and enjoyed, being involved with the projects. Cristina’s evaluation went further, however, and she knows that, over the long-term, almost 95% of all the students involved reported that they were now more interested in science as a result of their experience.



The day had a huge impact. As someone who previously would have run a mile at the mention of physics, I am now actively interested.

Participating teacher

STFC's Fellows aim to make a difference to their university's approach to engagement, and the skills of the staff base: something Cristina took to her heart. "We trained over 200 postdoctoral researchers and doctoral students during the Fellowship, and the prominence of my Fellowship work allowed me to play a central role in both the university's revised public engagement mission statement, and the initiatives we put in place to create a culture that is supportive of engagement." Her Fellowship also brought Cristina and her colleagues into closer working partnership with a range of organisations, including the Ogden Trust, the Institute of Physics, the Royal Society, and a variety of European networks.

In reflecting on her Fellowship, Cristina has this to say: "The Fellowship contributed to cultural change in my institution, increased my own experience, skills, and profile, and let me work with hundreds of inspiring school students who have benefitted from the collaboration. It has strengthened the value of engagement to my work as a researcher, and given me a valuable chance to aid my university community."



[Cristina's work] increased my enthusiasm for physics, and has helped me ignite a passion for STEM in my students.

Participating teacher

KEY LEARNING POINTS

- By collaborating across research groups, you can get greater impact from your engagement – more people are involved, more ideas are generated, and resources are more widely used and shared.
- Involving researchers in the production of resources resulted in people having belief in the quality of scientific content of the material, while still allowing appropriate people to bring their expertise to bear to ensure the language and imagery used was engaging.
- Greater insight into the outcomes of your engagement can be realised when you work with smaller groups of people over longer periods of time. Not only can you learn more, but this builds strong relationships that will be sustained beyond an individual project.



One month after their engagement,

93% of participating students

said they felt more interested in science.