



Science & Technology
Facilities Council

Science and Technology Facilities Council

One of Europe's largest multi-disciplinary
scientific research organisations

www.stfc.ac.uk



**STFC science and
technology delivers
real benefits to
peoples' lives, and
contributes to the
prosperity and
security of the UK**

Public Engagement Team

Inspire and Involve!



Linking STFC science and technology with the public, teachers and young people. Emphasise experience with hands-on 'real science' and scientists.

Particle and Nuclear Physics Outreach Officer.

Elizabeth.Cunningham@stfc.ac.uk



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Funding for Public Engagement

<http://www.stfc.ac.uk/pefunding>

- STFC, Small Awards. Funds for small, local or 'pilot' projects promoting STFC science and technology. Awards range from £500 to £10,000.
 - Closing dates Apr and Oct 2014.
- STFC, Large Awards. Funds for projects which are expected to have a significant regional or national impact. Awards range from £10,000 to £100,000.
 - Closing date November 2014.



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More Funding for PE

<http://www.stfc.ac.uk/pefunding>

- STFC, Public Engagement Fellowships. Buy time for additional or extended communication activities which will have a significant national or regional impact.
 - Closing date 27th February 2014.
- STFC, Bursary Schemes. Funds for scientists and engineers working in an area eligible for the Council funding to take parts in Royal Society media and communications courses.
 - On-going.

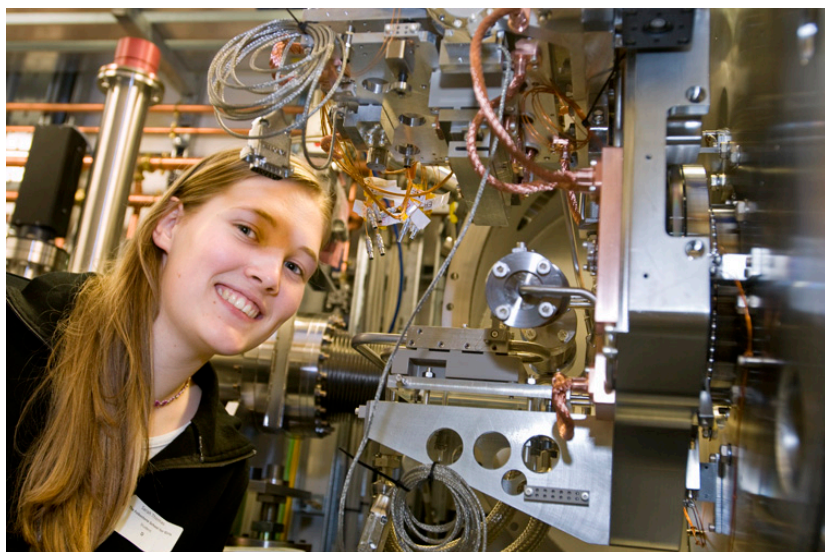


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How can you help us?

<http://www.stfc.ac.uk/particlephysics>

- List of particle physicists happy to give outreach talks to schools and other groups. [Would you like to be added to the list?](#)



- Particle Physics Masterclasses. One day events that give sixth form students a chance to learn about particle physics from the scientists doing the research. [Does your group need help running or starting up a masterclass?](#)

Contact Elizabeth.Cunningham@stfc.ac.uk



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Free Resources

What is next for the LHC?



Beth sydd nesaf i'r LHC?



Dè an ath-rud airson an LHC?



A TUNNEL TO THE BEGINNING OF TIME



BIG QUESTIONS: BIG EXPERIMENT

THE LARGE HADRON COLLIDER, CERN

The Universe started with a Big Bang – but we don't fully understand how or why it developed the way it did. The Large Hadron Collider allows us see how it behaved in the first fractions of a second. We have some idea of what happened, but we also expect the unexpected.

WHERE'S THE ANTIMATTER?

Yes, antimatter is real and the LHC can make it. Both matter and antimatter were created in the Big Bang, but we see mostly matter now. What happened to the antimatter?

WHY DO PARTICLES HAVE MASS?

Why do some particles have mass while others don't? What makes this difference? The discovery of the Higgs Particle helps us understand this.

WHAT IS OUR UNIVERSE MADE OF?

96% of our universe is missing. Some of it may be stuff that scientists call 'dark matter'. Can the LHC find it?



http://www.stfc.ac.uk/publications

THE LITTLE BOOK OF THE BIG BANG

A BIG SCIENTIFIC ADVENTURE

Everything you always wanted to know about the LARGE HADRON COLLIDER but were afraid to ask



CERN

Seeking
Uniting
Advancing
Training



THE UK CONTRIBUTION

The UK is a major partner in the LHC. It has contributed to the design, construction and operation of the LHC. The UK has also contributed to the development of new technologies for the LHC.

About the LHC

The LHC is the largest and most powerful particle accelerator ever built. It is located in a tunnel 100 metres underground, 27 kilometres in circumference. It consists of two circular tunnels, each containing a superconducting magnet. The magnets are cooled to -271°C, making them the coldest man-made objects on Earth.

Technology benefits

The LHC has led to many technological advances. These include: superconducting magnets, cryogenics, vacuum technology, and particle detectors. These technologies have many applications in other fields, such as medicine and industry.

Further information

For more information, visit the LHC website: <http://www.cern.ch>

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STFC science *inspires*

Through the wonders and inspiration of its science STFC is securing the future research capability of the nation

Science inspires youngsters and school pupils to pursue further education in STEM subjects.



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Further Information

- STFC Particle Physics Public Engagement website.
Particle Physics for you.

<http://www.stfc.ac.uk/particlephysics>

- STFC Public Engagement funding website.
Funding for you.

<http://www.stfc.ac.uk/pefunding>

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A new vision for new times
Impact through inspiration and innovation



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