



# Lichfield Science & Engineering Society

LICHFIELD **GARRICK**  
*Theatre & Studio*

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Professor Carolyn Roberts  
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**8:00 pm on Wednesday, 5th May 2021**  
**A virtual lecture via Zoom**

## **THUNDERBOLTS AND LIGHTNING**

**Rhys Phillips**

**Airbus**

Rhys Phillips is an electromagnetism scientist at Airbus Central R&T in Toulouse where he has worked since 2018, having previously spent almost 10 years working for Airbus in the UK. His research interests are in the field of electromagnetics with current research being orientated towards lightning, fuel electrostatics and wireless power transfer. He also leads the Airbus Technology Gender Diversity taskforce. Rhys graduated from Cardiff University in 2008 with a joint honours degree in Mathematics & Physics and in 2016, was made an honorary lecturer at the School of Physics & Astronomy. He is an award winning science presenter, presenting to audiences around the world. He works closely with the British Council in France to deliver workshops as part of their Science in Schools programme and is a mentor for the SchoolLab competition. Rhys is an experienced radio broadcaster presenting his own weekly jazz and science shows, as well as being a regular guest on BBC national and regional radio.

Rhys has been an active volunteer for the Institution of Engineering & Technology since 2010 and is currently volunteering for both the France Local Network and the Electromagnetics Technical Network. In 2019, he was appointed as Vice President of Public Relations for the nonprofit organisation, European Young Engineers and to the ambassadors' council for the Queen Elizabeth Prize for Engineering. Rhys is a keen trumpeter and can now be found performing with various musical groups around Toulouse.

The talk will cover the phenomenon of lightning; the processes which lead to a lightning strike and the different types of lightning that can exist. Rhys will show what happens to aircraft when they are hit by lightning and explain how we protect against damage from this. He will also give the audience a chance to see exactly what happens in Airbus' lightning lab and answer the question that everyone is asking – can a piggy bank survive a lightning strike?

**This talk will be preceded at 19:30 by the Society's Annual General Meeting.**