

A Suite of Events

Saturday 30th March 12-8pm



# FLIGHT

## Physics

How do planes fly? What is it that allows an aircraft to travel

faster than the speed of sound? Come and see how Physics is vital to the Engineering behind the innovations which allowed the Comet, Concorde and the 787 to take to the skies.

Why are integration, vectors, the numbers  $e$ ,  $\pi$  and the square root of minus one so vital in flight and other modern technology? Find out how seemingly abstract ideas are having such a huge impact on engineering and on our lifestyles.

## Maths

## Economics

Money is behind all endeavours, making ide-

as possible and pushing the frontiers of research, development and production. What are the economic driving forces that influence the aerospace industry? Come and explore the principles that keep air travel a viable business.

From the materials aircraft are made of,

the design of the fuel they burn or an understanding of the pollution they cause, Chemistry is vital to modern aviation. Come and develop your understanding of how developments in Chemistry can influence the science of flight.

## Chemistry

@AerospaceBristol  
The Home of Concorde

## Why come on an Xpanding Education Event?

We design our events to be inspirational, insightful and individual. You will be challenged intellectually, pushing what you are learning at A-level to the next level. More importantly, you will gain an insight into how things are applied in the real world. You will also be given something to write about in your personal statement application for university, and to discuss at interview, which becomes ever more vital in the modern university application process.

## Outline of Event

11:45 Arrival and registration at Aerospace Bristol

12:00 Lunch

2:00 Session 2

4:15 Break

12:45 Session 1

3:00 Break

4:30 Keynote Speaker

1:45 Break

3:15 Session 3

5:30 Event Ends

All participants can choose two sessions from Physics, Maths, Chemistry, Economics and a Guided tour of the Museum of Flight.

All will have a guided tour of Concorde.

The event will finish with a meal together for all participants, leaders and the keynote speaker. This will ensure that there is time for everyone to interact and ask questions as part of the afternoon.



Dr Steve Wright is now an Associate Professor of Aerospace Engineering at the University of the West of England (UWE) after 25 years as a software, electronics and systems engineer at Rolls-Royce, ST Microelectronics, and Airbus. During his career, he has contributed to aircraft including the Airbus A380 and Boeing 747. He completed his

doctorate in Computer Science in 2010, and he now lectures and conducts research into Avionics and Aircraft Systems, particularly in the field of UAVs. He has now founded the Unmanned Flight Laboratory (UFL) at the UWE, developing UAV technologies for a variety of industrial customers. He was recently interviewed by the BBC to respond to the drone sightings at Gatwick Airport.

Keynote Speaker: Prof. Steve Wright

David Richardson has been a Physics teacher for 20 years, enabling his students to achieve at the very highest level. He has been involved nationally and internationally with work for the Institute of Physics in London, presenting science shows in schools, coaching physics teachers in excellent teaching practice and being on the Editorial Board for Physics Education. He also presented his Science Show at the Beijing China Science Festival and the China Science and Technology Museum in 2014. In 2012 he was recognised by the Queen for his service to Physics Teaching in Africa. He is now working on providing excellent opportunities for young people to see the links between their school studies and the real world.



Event Organiser: David Richardson MBE

Maximum number of attendees 16  
For more information and To Book



[xpsand-ed.org/events](http://xpsand-ed.org/events)

Aerospace Bristol Hayes Way  
Patchway Bristol BS34 5BZ  
(If arriving by train, come to Bristol Parkway  
and get a taxi to the museum)



# Xpanding Education

## Bespoke Events

All of our events are limited to small groups. This ensures that each participant interacts with the course leaders and guest speakers. The aim is that everyone leaves feeling they have learnt something new and feels part of the event.