



Advanced Mathematics  
Support Programme®



# **AMSP & Durham University School of Education Christmas Lecture**

**Durham**

8th December 2021

## Overview

As part of our annual KS4 enrichment provision we have teamed up with Durham University School of Education and added a Christmas Lecture and Careers Q/A Panel at Durham University and hope that this will become a regular fixture.

Durham University has kindly provided the use of the Calman Learning Centre - a state of the art lecture theatre.

We have managed to secure Professor Paul Glaister as our guest speaker this year whose talk is entitled 'Have you thought about the part mathematics could play in your future?'. Paul has authored over 450 articles, many of which are relevant to mathematics in school. He has actively contributed to the Royal Institution's Mathematics Masterclass series and many other enrichment and outreach events, and is cited by the Mathematical Association for their 150th Anniversary Celebration as contributing to "A Magnificent Twelve" - being one of 12 key articles recognised as being the 'jewels' from across 127 years of essays/papers submitted to the Mathematical Gazette.

Following on from Professor Glaister's lecture we will have a brief career talk highlighting the opportunities that maths and STEM subject study can provide for students before handing over to speakers from both business and university sectors who will outline their current roles, how they got there, how what they do makes life so exciting, and where they think their next steps will take them. There will be opportunities for students to ask questions and drill down into the experiences of the presenters.

Current details of guest speakers signed up for careers talk:

Niko Sarcevic:

*Niko works as a Cosmologist at Newcastle University, having studied astrophysics in four different countries before becoming involved in designing a dark matter detector. She hopes to show how physics and mathematics are extremely beautiful and fun, inspiring students to think about pursuing a career in the sciences.*

Natasha Boulding:

*Natasha is a Chemistry graduate and has a PhD from Durham. Founder of Sphera Ltd she is the winner of the UK's Women in Innovation award. Her startup company transforms plastic waste into aggregate enabling construction firms to lower their carbon footprint as less waste is sent to landfill or incineration thereby reducing CO2 emissions while recycling plastics.*

Damien Murphy (MBA):

*Damian graduated from University of Limerick with a degree in Mechanical Engineering before attending and graduating from Durham University Business School. He has a wide experience in management across a diverse range of businesses and currently works as Chief Operations Officer for Trench Networks Ltd which provides 4G/5G network infrastructure and support to a number of the UK's top 20 construction companies.*

Matthijs van der Wild:

*Matthijs is a cosmologist-turned-software developer who, after obtaining a PhD for his work on quantum gravity and inflationary cosmology, currently works at Durham University on the data-processing infrastructure of the pan-European Low-Frequency Array (LOFAR) telescope network. On the side he still works on projects in cosmology, and enjoys showing people the beauty and universality of physics and mathematics.*

Unfortunately due to COVID restrictions we are unable to provide refreshments as part of the afternoon - there will be a break at approx 2:15 to 2:30 between the main lecture and the careers section. There is an onsite cafe where lunches and refreshments can be purchased prior to starting or during the break if staff are happy to supervise their students whilst doing so.

**The capacity of the event is for 240 students so we are hoping to attract 10 schools each bringing with them 24 students and 2 members of staff. We would be very grateful if you could let [jeremy.dawson@amsp.org.uk](mailto:jeremy.dawson@amsp.org.uk) know if you plan to bring fewer students and he will then be able to offer these places to other schools.**

The event is aimed at Y10/11 students and is completely free.

It has been advised that parking for the Centre can be difficult (there is no onsite parking) but there is a large park and ride spot Howlands (<https://www.durham.gov.uk/article/22364/Howlands-Farm-Park-and-Ride>) close by so students could be dropped off at the Centre and a member of staff could park and ride. Please therefore plan your trip carefully.

## Aims

- To enrich students' understanding and appreciation of mathematics both as a discipline in itself and also as an applicable tool within the wider scope of research, employment, business and society.

## Key Facts

<b>Event ref:</b>	#9059
<b>Audience:</b>	Students
<b>Target year:</b>	Year 10 & 11
<b>Curriculum focus:</b>	11-16 maths, A level Mathematics
<b>Mathematical focus:</b>	Maths in other subjects
<b>Event format:</b>	Enrichment
<b>Event length:</b>	3 hours
<b>Region:</b>	North East
<b>Venue:</b>	Calman Learning Centre (Rosemary Cramp Lecture Theatre), Science Site, South Road, City of Durham, Durham, DH1 3LE
<b>Date:</b>	Wed 8th Dec 2021
<b>Course times:</b>	13:00 - 16:00

## Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/9059>