Annual Report of Activities for the Liverpool Mathematical Society AGM

Open Challenge 2022

The theme was *Famous Works of Art*. The competition attracted 160 entries from 31 different schools. 23 prizes were awarded and 30 certificates. Of the 34 schools which sent in entries in 2021, only 13 sent in entries this year, with an additional18 different schools taking part. Entries were mostly from students in Years 12 and 13, but with a few received from students in younger age groups.

All entrants, together with teachers and parents, were invited to an online evening of mathematical recreation on the Gather Town platform on 4th May. The event included a series of puzzles, presentation of the solutions and a virtual presentation of the prizes.

Pop Maths Quiz 2022

The Pop Maths Quiz is a team competition that runs a bit like a pub quiz, but without any alcohol!

Teams consist of 4 students (under 19 years) who, during the Quiz, work as a team to attempt to solve a number of questions on a wide range of mathematical topics. They then have the opportunity to give their answers via an electronic response system. Not all questions require specific A-Level Maths knowledge but all questions have a mathematical flavour.

The 18th Annual LivMS Pop Maths Quiz was held on Saturday 5th March 2022 at Liverpool John Moores University Student Life Building and also on ZOOM, and was organised by Barry Grantham, Ian Jarman and Tony Carter.

The Quiz was attended by 84 students in 22 teams from 10 schools, based in Merseyside, Wirral, Cheshire, Lancashire, and the Channel Islands.

Cash prizes were awarded to those attending in person, and all participating teams received certificates. The Quiz was supported by Liverpool John Moores University, LivMS and W.H.Smith Promotions Ltd.

Popular Lectures 2021-22

Six public lectures were held. Three were delivered over Zoom. Two were in-person. The Presidential Lecture was offered in a hybrid format. These were regarded as having been very successful and the Society will continue to offer some online lectures in order to reach a wider audience beyond the Merseyside region.

Party Hard – The Maths of Connections, Prof Colva Roney-Dougal, 13/10/2021

An estimated 120 people attended remotely, comprising a mixture of school, college and university students, teachers, lecturers, and the wider public.

<u>Great Mathematical Diagrams, Dr Chris Prichard, 18/11/2021</u>

This was our first face-to-face lecture since the Covid pandemic. It was held in the Eden Building at Liverpool Hope University and attracted an audience of around 25 people.

<u>Fermat's Last Theorem, Dr Simon Singh, 15/12/2021</u>

Simon kindly waived his usual speaking fee, as the lecture was online. It was difficult to estimate the audience size, as many of the 100+ connections were teachers streaming to classes in school, but it was thought to be in excess of 300 people.

<u>Notable Schools in the History of Mathematics Education and Some of the People Who Learned There, Damian Haigh, 02/02/2022</u>

30 Zoom connections were made to this lecture, with a variety of students, academic staff and the public in remote attendance.

<u>Lakes, Rivers… and Waterfalls? The Surprising Things Maths Can Help Us to Understand about Antarctica, Dr Sammie Buzzard, 10/03/2022</u>

Held on the University of Liverpool campus, this was our second in-person lecture of the academic year. 25 students, teachers and other members of the public formed the audience.

<u>Slicing Pizzas and Counting Necklaces, Dr Joel Haddley, 12/05/2022</u>

This was Joel's Presidential Lecture and he delivered it in-person with a simultaneous live stream. This was a success, but entailed a lot of advance preparation and coordination during the lecture.

About 20 people attended the lecture in the room, while there were a further 30 Zoom connections, including a family in the United States who wrote to thank us afterwards!

Acknowledgements and Thanks

The Committee of the Society would like to express its gratitude to all those who contributed to the success of the above events.