

## **Annual Report of Activities for the Liverpool Mathematical Society AGM**

### *Worshipful Company of Actuaries*

The Society benefitted from a generous grant of £2100 for the 2022-23 year, which was used to support Open Challenge and the lecture series.

### *Open Challenge 2023*

The theme was *Ancient Egypt*. All entrants, together with teachers and parents, were invited to an online evening of mathematical recreation on the Gather Town platform on 10th May. The event included a series of puzzles, presentation of the solutions and a virtual presentation of the prizes. Holly Copley, a representative of the Worshipful Company of Actuaries, spoke on their behalf.

The competition attracted 116 entries from 39 different schools from a very wide area. There were some outstanding entries. 22 prizes were awarded and 31 certificates. Of the 34 schools that sent in entries in 2022, only 12 sent in entries this year, with an additional 27 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.

### *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 19th Annual LivMS Pop Maths Quiz was held on Saturday 11<sup>th</sup> March 2023 at Liverpool John Moores University Student Life Building and also on Zoom, and was organised by Barry Grantham, Ian Jarman and Tony Carter.

Despite the 'severe weather conditions' of the day before which caused the closure of Liverpool secondary schools, the event was attended face-to-face by 47 students in 12 teams, supported by 7 teachers. In addition, 12 students in 3 teams took part online from Jersey Girls College, supported by their Head of Department. 4 LivMS staff attended supported by 2 LJMU PGDE maths trainees. The responses to the quiz questions were generally very good with very few marks separating the teams at the top of the leader board.

### *Popular Lectures 2022-23*

Five public lectures were held. Two were delivered over Zoom. Two were in-person. The Presidential Lecture was offered in a hybrid format.

Adventures in the 4<sup>th</sup> Dimension, Zoe Griffiths, 13/10/2022

There were around 100 connections for this online talk, with at least some being streams to classrooms.

Dark Matter and Dark Energy: Mysteries of the Universe, Ed Hardy, 24/11/2022

This was our local speaker. It was held in the 502 Teaching Hub at the University of Liverpool and attracted an audience of around 120 people, many of them undergraduates.

Mathematics: the Joy and the Magic, Andrew Jeffrey, 13/12/2022

This was the Christmas Lecture. Students and teachers from a variety of schools attended, with an approximate audience of 200 people.

Fine Arts and Mathematics, Ivona Grzegorzcyk, 02/02/2023

Ivona was speaking via Zoom from California. 41 connections were made to this lecture, with a variety of students, academic staff and the public in remote attendance.

Phi, Phyllotaxis and Fibonacci, Damian Haigh, 17/05/2023

This was Damian's Presidential Lecture.

About 20 people attended the lecture in the room, while there were a further 10 Zoom connections.

*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.