



BSHM Christmas Meeting – Programme & Book of Abstracts

9th December 2023

Online

Programme

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| 11.00 | Welcome by Sarah Hart, BSHM President |
| 11.10 | Mark McCartney (Ulster University), <i>The Lion, the Witch & the maths graduate: Studying mathematics at Queen's College, Belfast in the 1880s</i> |
| 11.50 | Sayori Ghoshal (Krea University), <i>Statistics and Colonialism</i> |
| 12.30 | Comfort Break |
| 12.40 | AGM & Lunch |
| 14.05 | Neumann Prize Announcement |
| 14.10 | Ciarán Mac an Bhaird (Maynooth University), <i>The Elements in Gaelic: An incomplete Euclid</i> |
| 14.30 | Tom Briggs, <i>Maths, Museums & Changing Mindsets</i> |
| 14.50 | Adrian Rice (Randolph-Macon College), <i>"The Riddle of the Ages": James Joseph Sylvester and the transcendence of π</i> |
| 15.30 | Break |
| 15.45 | Sarah Hart (outgoing BSHM President), <i>Mathematicians and Poets</i> |
| 16.45 | Close of meeting |

Abstracts

Tom Briggs - **Maths, Museums & Changing Mindsets** (member short talk)

Could exposure to mathematical themes whilst visiting museums help to change the negative attitudes towards mathematics that are prevalent in modern British society? A survey that formed part of a research project submitted towards an MA in Education suggests that this may be the case for secondary-age children visiting museums as part of a school visit. This finding came with a surprising twist, and the project also investigated what mathematics teachers might want from such offers, and looked into whether it was in the best interests of museums to provide them.

Sayori Ghoshal - **Statistics and Colonialism**

In 20th century British India, statistics began to be developed as an anticolonial project, both in terms of academics and governance. How was statistical objectivity squared with the politics of colonialism and anticolonialism? In this presentation, I will discuss the works of Indian statisticians to show how they constructed themselves as international experts. They collaborated with European scientists as equals, even as they strove to resist their unequal stature as colonized subjects. These instances additionally help illuminate the overlooked history of statistics in modern India, where it remained linked to the European history of statistics but also had a distinct trajectory.



Sarah Hart - **Mathematicians and Poets**

An important aspect of the history of mathematics is how mathematics has interacted with other cultural activities. This lecture will look at some of the ways that mathematicians have engaged with poetry and other literature, for example the two lectures given by Galileo on the mathematics and geometry of Dante's *Inferno*. We'll also look at the reverse question: the changing ways in which literature throughout history has treated mathematicians and mathematics, and why it matters.

Ciarán Mac an Bhaird - **The Elements in Gaelic: An incomplete Euclid** (member short talk)

In this talk we consider a 16-page manuscript which features the beginning of Book I of Euclid's Elements and finishes, rather abruptly, with Proposition 2. We discuss some of the puzzles that this mid-nineteenth century text presents to us. For example, it is written in old script (seancló) Irish which, as far as we can determine, makes it unique. The scribe is almost certainly one John O'Donovan (Seán Ó Donnabháin), a well-known Irish language scholar who worked for the Ordinance Survey in Ireland but who had no obvious mathematical training. We will examine three entries in the Gaelic Journal (*Irisleabhar na Gaedhilge*) from the 1890's which contain the only previous commentaries on this text so far identified. Finally, we will look at the cast of characters linked to this manuscript and its journey to its current home, Special Collections in the Library at University College Dublin.

Mark McCartney - **The Lion, the Witch & the maths graduate: Studying mathematics at Queen's College, Belfast in the 1880s**

The 1880s saw the dissolution of the Queen's University of Ireland, the formation of the Royal University of Ireland, and the admission of women as students to Queen's College Belfast. This talk will look at the mathematics curriculum and examinations around that time and at the experiences of Florence Hamilton, one of the first female students at the college.

Adrian Rice - **"The Riddle of the Ages": James Joseph Sylvester and the transcendence of π**

As most historians of mathematics are aware, Ferdinand Lindemann's 1882 proof of the transcendence of π settled the ancient problem of squaring the circle once and for all. But the story did not end there. Over the next twenty years, several other proofs were published—by mathematicians such as Karl Weierstrass, Paul Gordan, and David Hilbert—all attempting to elucidate, simplify, or generalize this epoch-making result. But one such proof sank without a trace and was almost completely ignored. This is surprising as, not only did it appear in a major journal with a large international readership, but it was also written by one of the most famous mathematicians of the time—James Joseph Sylvester. This talk tells its story.