

2016: LSE Department of Mathematics student, Michael Seal, awarded The British Society for the History of Mathematics Undergraduate Essay Prize



The <u>British Society for the History of Mathematics (BSHM) Undergraduate</u> <u>Essay Prize</u> is awarded annually for an essay by an undergraduate student on any topic in the history of mathematics. One of this year's two prizes has been awarded to Michael Seal (London School of Economics, Department of Mathematics, BSc Mathematics with Economics) for his essay entitled "Was there a Revolution in Analysis in the Early 19th Century?" Michael was a student on MA318: History of Mathematics in Finance and Economics, taught by Professors <u>June Barrow-Green</u>, <u>Norman Biggs</u> and <u>Robin Wilson</u>.

On Michael's success, <u>Professor Norman Biggs</u> said: "Michael's prizewinning essay is based on his assessed coursework for MA318. This is the first time that MA318 students have been able to enter for the BSHM Prize, and it is good to receive national recognition. Well done, Michael!"

Head of the Mathematics Department, <u>Professor Martin Anthony</u>, commented: "This is excellent news for Michael, and we warmly congratulate him. It reflects very well too on the teachers on MA318. The introduction of this innovative course by Norman Biggs five years ago has expanded the type of course we offer in the Department and the types of assessment methods we use. We are privileged to have these three eminent historians of mathematics teaching in the Department."

We spoke to Michael about his success and he had this to say about his time at LSE and how it now influences his role a secondary school maths teacher:

"The first thing I should say is what a pleasant surprise it was to be awarded the prize! It is lovely to have my work recognised, and exciting to be able to engage further with those at the BSHM - I think the essay prize is a great opportunity, and I'm very grateful to the BSHM for presenting me with it!

The essay itself asked whether there was a revolution in Analysis in the early 19th century, which is interesting because of the breakthroughs in Calculus that preceded the period, and the ensuing interplay between the march of mathematics and science, and the political and religious institutions of the time. My argument was 3-pronged and concluded that there was a revolution in Analysis at that time. I concluded that it had 3 defining characteristics: the paradigm shift in the collective attitude towards rigour at the beginning of the 19th century, which motivated a huge increase in the organisation of, and research into, the concepts of Analysis, which in turn has had an unprecedented impact on our current understanding of the subject.

Finally I wanted to say how much I enjoyed the course! It was delivered enthusiastically and engagingly, and was a highlight of my final year! My time at LSE was marked by great people and experiences throughout, in particular, it was of course dominated by a series of fascinating (and deeply challenging!) maths courses. What I realised during the MA318 course, and have come to appreciate even more deeply in retrospect, is what really grabs me about the History of Maths: that it ties together the different areas of the subject into a cohesive big picture. Not only that, but it provides a spectacularly detailed narrative for that how that 'big picture' emerged.

I am now teaching Maths full-time at a secondary school in South London, and my lessons are packed with historical context: stories of where the Maths came from, and how it ties in with everything the period - from the body of academic knowledge at the time, to the social and political situation! I am grateful to Professors Biggs, Wilson, and Barrow-Green for an inspiring and informative experience, that has enriched my own teaching, and has opened me to an entirely new dimension of our subject!"