

Sir Michael Atiyah

Notes on a celebration of his life and work

The event was held in the Playfair Library, University of Edinburgh on Saturday April 6th 2019.

The morning session had a very strong mathematical flavour but the afternoon was more about his life and style! Approximately 120 attended.

The event was opened by the University Principal, Professor Peter Mathieson. In his welcome, he recalled a similar event in 2018 for Lily Atiyah. He noted that Michael's association with the University began in 1997 when he was awarded an Honorary Chair and continued until very recently. He reflected on the fact that Michael had been one of two individuals who had been President both of The Royal Society of London and The Royal Society of Edinburgh. The other was Lord Kelvin. Whilst Michael was President of the RSE, he took up the challenge of creating a public statue in honour of James Clerk Maxwell. During his life, Michael was awarded a Fields Medal and in due course an Abel Prize. He was made a member of the Order of Merit in 1992.

Peter Mathieson then bade farewell as he had another engagement.

Continuity was provided for the rest of the morning by Iain Gordon, the current Head of the Mathematics Department at the University.

The first mathematical speaker was Professor Nigel Hitchin, FRS, of the University of Oxford. He was first associated with Michael when a PhD student and they had been in contact ever since. Michael's early area of study was the Index Theorem which, I think we were told, was in some way an extension of the three-dimensional formula $V - E + F = 2$. We were then treated to a whistle-stop tour.

The next speaker was Professor Nick Manton. He spoke of work he had done with Michael on monopoles which were related to physics. The work involved such objects as Instantons, Monopoles and Skyrmions. These occur in geometric models of matter.

The next item was a video of a talk given by Professor Jean-Pierre Bourguignon who was unable to be there in person. He spoke very well and was full of praise for Michael and the work he did on links with theoretical physics. There was mention of some sort of Kählerian Geometry and the notion of a spinner which was in a branch of physics and several other things.

The last speaker of the morning was Professor José Figueroa-O'Farrill. He spoke of his memories of Michael and their work in Topological Field Theory. He mentioned other collaborators, Freeman Dyson and Ed Witten but their fields of activity were way off my scale!

After a short musical interlude, we were provided with a buffet lunch.

After lunch and another short musical interlude, the afternoon session began.

The afternoon continuity was provided by James Mackay (Lord Mackay of Clashfern) who, it transpired, was a student at Trinity at the same time as Michael.

The first speaker was Dame Anne Glover, the current President of The Royal Society of Edinburgh and a successor of Michael. She welcomed members of the Atiyah family and praised the contribution that Michael had made to public life. She described her first meeting with Michael and said she was overwhelmed. At that time, Michael was in his late seventies

but was full of life and had devoted huge energy to the RSE. A prime example was his promotion of the Maxwell Statue and he also had a European role as well. Dame Anne said that Michael would always be remembered within the RSE for his hard work and leadership and drew attention to a pair of youtube films which were available on the RSE website. She closed by stating that Michael was a man never to be forgotten.

Lord James then recounted a few anecdotes of his time with Michael at Trinity. The first was a photo of a group with the two of them as members and then the game of scholars bowls and games of chess in which Professor Besicovitch played several games against undergraduates at once! There was a story of being the pillion rider when Michael took them to Oxford to visit his brother. There was an anecdote of 'Operation Epsilon' in 1992 when Michael asked Lord James to declassify the World War 2 German programme which related to nuclear weapons. Lord James then drew attention to the Atiyah wedding photo at which he was the best man. Throughout the ensuing years they had maintained regular contact and were together at Lord James' recent 90th birthday which, sadly, Michael was not able to reciprocate. The final anecdote was one from their undergraduate days in which, in the room of one of them, they were discussing some mathematics about which Michael was booming away when a shout from across the road told them to make less noise as sleep was needed!

The next speaker was Dr William Duncan, a previous Executive Secretary of the RSE. He described Michael as 'truly exceptional' who served a good apprenticeship. Michael did not go in for a quiet retirement, as President, his role was not titular. Michael was amazingly energetic and there was one example quoted in which Michael flew into Glasgow from the States on the morning of an RSE Council meeting which he chaired and then announced that he needed to get away quickly as he was flying to China the next morning! As well as this sort of activity he was totally dedicated to the James Clerk Maxwell project. There was a story behind the portrait of Michael as Master of Trinity¹ which was included in the centre of booklet which was available at the event. We were told he did not like sitting still and being silent so the artist relaxed these conditions. To decide whether the finished portrait would do required the 'Lily test'! The portrait passed.

There was a space in the programme for 'contributions from the floor'. Approximately eight individuals made their way to the front, including a grandson, to recount some incident or other.

The final speaker was Professor Bernd Schroers of the mathematics department at Heriot Watt University. He listed various items with photographs of Michael with a range of mathematical colleagues.

The event closed about 3.45pm.

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¹ https://www.trin.cam.ac.uk/wp-content/uploads/2019/01/Michael-Atiyah_MNoakes.jpg