Appendix 7: Francis Allotey

Francis Kofi Ampenyin Allotey (09/08/1932 to 02/11/2017) was born and raised in Saltpond in Ghana. His interest in science began while a child, as after school he would help his father stock his shop, which included many books. Allotey dipped into these books and was inspired by them, particularly the study of mathematics and physics, to explain the workings of the universe. After his schooling in Ghana, Allotey studied first at the London Borough Polytechnic before studying under Abdus Salam at Imperial College London, where in 1960 he was awarded the Diploma of Imperial College.

Whilst at Imperial, Allotey began working on X-ray spectroscopy. This work continued after moving to Princeton for his doctorate studies, where he was awarded his PhD in 1966. Allotey's groundbreaking research focused on the effects of electron-hole scattering resonance on the X-ray emission spectrum, and his seminal paper on this topic was published in the Physical Review Journal in May 1967. This work resulted in the Allotey Formalism, a technique used to determine matter in outer space.

While at Princeton, Abdus Salam wrote to Allotey to invite him to visit the International Centre for Theoretical Physics in Trieste. Allotey was impressed with the work of the ICTP and its mission to promote mathematics across the developing world. Allotey continued to work with the ICTP to develop the opportunities available to study mathematics across Ghana and Africa more widely, as his own academic career progressed.

Allotey returned to Ghana in 1966 and became a lecturer in the Mathematics Department at the Kwame Nkrumah University of Science and Technology (KNUST). Among his many academic achievements, he there became Ghana's first full Professor of Mathematics in 1974. In addition, Allotey created the first dedicated University Computer Science Department in Africa at KNUST, and would travel around the continent espousing the benefits of studying Mathematics, Physics, and Computer Science.

During his career, Allotey was the President of the Ghana Institute of Physics, a founder of the Ghana Physical Society, and President of the Ghana Academy of Arts and Sciences. He always maintained his passion for science education, and organised annual maths and physics activities in Ghana to which anyone from Africa was welcome. He was awarded the Millennium Excellence Award in 2005 by the Government of Ghana, and this award was also commemorated by a postage stamp. In 2009 he was awarded Ghana's Order of the Volta for Outstanding Contribution to Science and Science Education, and in 2012 helped to establish the African Institute of Mathematical Sciences in Ghana.

Allotey returned to Imperial College in early 2017, where he enjoyed recalling his years of study, and was working with Imperial mathematicians to create a network of mathematics researchers in developing countries. Allotey died in late 2017, and the Government of Ghana gave him a state funeral.

Sources:
https://www.imperial.ac.uk/news/177991/qa-with-ghanaian-science-luminary-promoting/
https://en.wikipedia.org/wiki/Francis_Allotey