

Professor Jeff Griffiths

Cardiff University

Immigration Queues at Heathrow Airport: A Case Study in Mathematical Modelling

Day 1 – Keynote Speaker II (13.30-14.30)

Case studies are an important feature of many undergraduate degree schemes. Experience has shown that students are stimulated by observing how mathematical principles may be applied in real-life situations. This case study relates to immigration queues at Heathrow airport in the run-up to last year's Olympic Games. The very large waiting times which ensued at passport control received wide media attention, with the Home Secretary and the Prime Minister each taking a personal interest in dealing with the situation. In their wisdom, the Home Office decided to seek help from the world of OR.

Jeff Griffiths graduated in mathematics in 1961, and then took a postgraduate course in Statistics, followed by a PhD in Stochastic Processes. Following graduation he spent 3 years working as an Operational Research Analyst in the steel industry. He entered academic life in 1964 at Cardiff, and has been employed there ever since. He was appointed Professor and Head of Mathematics in 1983, and Dean of the Science Faculty in 1991.

Jeff was elected President of the UK Operational Research Society in 2006. He was elected a Fellow of the Royal College of Physicians in 2005 for his contributions to research in medicine and healthcare – the only mathematician ever to be awarded this honour – and was elected a Fellow of the Royal Society of Medicine in 2007. In 2009 he was awarded the Beale Medal in Operational Research – this is the premier award in OR, awarded “to give formal recognition to a sustained contribution over many years to the theory, practice, or philosophy of OR in the UK”.

Professor Griffiths has been awarded many research grants during his career, the most notable being his current EPSRC Science & Innovation award. He has lectured extensively in many parts of the world.

On the more personal side, his interests are in sport, particularly cricket and rugby. He is a keen gardener and DIY enthusiast, and also enjoys motoring.