

James N. Flavin

1936 – 2012



Jim Flavin was born in Cork in December 3, 1936. He received his secondary education at Christian Brothers College, Cork where he had a distinguished academic career. He entered University College, Cork in 1954 and was awarded a First Class Honours Degree in Mathematical Science in 1957. He was awarded a M.Sc. Degree as well as the N.U.I. Travelling Studentship in 1959. Jim then embarked on his doctoral studies at King's College, Newcastle upon Tyne under the direction of Professor Albert Green and was awarded his Ph.D. degree from the University of Durham in 1962. The topic of his thesis was *Thermoelastic Wave Propagation in Prestressed Elastic Materials*. This was a profoundly stimulating time to be at King's College, since Professor Green's innovative work on fundamental continuum mechanics attracted several outstanding international visitors who influenced and enhanced an exciting research atmosphere. Jim took full advantage of the opportunities offered.

He was appointed Lecturer in Mathematical Physics at University College, Galway (now National University of Ireland, Galway) in 1962 and a year later at the remarkably young age of 26 was appointed Professor of Mathematical Physics and Head of Department in 1963. He held both positions until his retirement in 2002. He was

the sole member of the Department until January 1965 and as a result carried an enormous teaching load.

At the time of Jim's appointment the College was governed by the University College Act 1929 which required the institution to provide academic programmes through the medium of the Irish language. While some members of the academic community took this requirement less than seriously, Jim understood it to be one of his conditions of appointment and undertook it extremely seriously. He realised that his secondary education had not fully equipped him adequately in Irish and set out to rectify this situation. He did this initially by frequently visiting the West Kerry Gaeltacht in Dunquin where Irish was the first language of the area. He also immersed himself in the study of Irish Language and Literature. His linguistic skills were such (he was also fluent in Italian and French) that he was soon regarded as an expert in the use of the Irish Language.

Jim's love of the Irish language was reflected in his enthusiasm for teaching courses in U.C.G. though the medium of Irish whenever possible. He was one of the few people who provided courses through Irish in the Science Faculty beyond first year level. He was for many years a member of a Department of Education working party on the development of an Irish terminology of scientific terms and he took particular pleasure when these efforts ultimately culminated in the publication of an English-Irish dictionary (*Foclóir Eolaíochta, an Gúm*, 1994).

He was an extremely active member of the Governing Body of U.C.G. for over twenty years until 1992. He was also a member of the Senate of The National University of Ireland for many years and served on the board of The School of Theoretical Physics of The Dublin Institute for Advanced Studies. Jim was also a member of National Committee for Theoretical and Applied Mechanics and a founder member of the Irish Mechanics Society. He was elected a Member of The Royal Irish Academy in 1999. He was also a Foreign Member of the *Accademia di Scienze Fisiche e Matematiche di Napoli*.

Jim Flavin published throughout the years in various areas of Applied Mathematics. Initially his doctoral work led to a number of papers on wave propagation in elastic media. However he soon became interested in problems associated with classical elasticity. His initial work in this area was concerned with establishing bounds for

the torsional rigidity of elastic cylinders of various cross sections and composed of a variety of types of elastic materials. His subsequent work on Saint-Venant's principle led to a series of papers frequently quoted by other leading scientists in the field. There followed a series of publications, mainly in conjunction with Robin Knops and Larry Payne on estimates for the asymptotic growth and decay of solutions in elasticity and other elliptic systems. In addition, he continued to be a sole author of several contributions devoted to diverse aspects of Mechanics

In 1993 Jim embarked on a collaboration with Salvatore Rionero of The University of Naples, which proved to be extraordinarily fruitful until Jim's death in April 2012. They spent many happy periods working together in both Galway and Naples. Their research was primarily concerned with the study of partial differential equations with particular emphasis on heat flow, nonlinear diffusion and Liapunov stability. Their numerous important and incisive results were combined into a well received book: *Quantitative Estimates for Partial Differential Equations: An Introduction*, 1995, CRC Press.

Jim had many interests. He was an extremely keen walker and swimmer. He played rugby while a student at Christian College, Cork. In recent years, primarily motivated by his son Aonghus, he developed a keen interest in soccer. He was an avid Liverpool supporter and was a regular visitor to Anfield. Jim's most recent visit was in January of this year, to see Liverpool play Manchester United.

Jim was a renowned story teller and seanchaí and is remember by his students as an excellent lecturer and communicator. He was a highly regarded member of the Irish and international mathematical communities and his death on April 13, 2012 leaves a void in the lives of those who knew him well. Above all he will be greatly missed by his wife Freda, his children Martina, Aonghus and Clíodhna and grandchildren.

Leaba imeasc na naomh go raibh aige.

Collected and compiled by Matt McCarthy, NUI Galway.