

maximal subring.

Dr. D. Lewis, of University College, Dublin, on *The Condition of an eigenvalue*.

Group B, chaired by Dr. R.M. Timoney, heard the following:

Dr. C. Nash, of Maynooth, on *Sheaf cohomology and functional integration*.

Dr. D. Wilkins, of Trinity College, Dublin, on *Finite Gaussian curvature*.

Dr. D. O'Donovan, of Trinity College, Dublin, on *Diagonalising a real symmetric matrix*.

8. At 15:00, the meeting reassembled in the Geography Theatre, with the President in the chair, for the panel discussion on *The impact of computers on the mathematical curriculum*. Short position papers were read by M. Klimek, A. Wickstead, and T. Murphy, and there was an animated discussion.
9. At 16:00, the meeting adjourned for tea.
10. At 16:30, Professor W.K. Hayman F.R.S., of York University, was introduced by Professor B. Twomey, and presented an invited lecture on *Bases of positive continuous functions*.
11. Professor Twomey expressed the meeting's gratitude to the speakers and the organisers, and the meeting closed at 17:30.

A.G. O'Farrell,
Secretary

Support for Conferences

The Irish Mathematical Society can provide limited support for conferences held in Ireland. Application should be made in advance of the conference to the Committee through the Treasurer.

NEWS

Personal Items

- Professor Mario Matos from the University of Campinas, Brazil, will be visiting the Mathematics Department of UCD during the months of January and February 1989.
- Professor Jose Isidro from the Universidad de Santiago de Compostela will be visiting the Mathematics Department of UCD from March to June 1989.
- John Miller of TCD and Eugene O'Riordan of Dundalk RTC are invited keynote speakers at the Conference on Discretization Methods in Flow Problems to be held in Mägdesprung, East Germany, April 3-7, 1989.
- Michael Clancy is on sabbatical leave from NIHE Dublin for 1988/89. He is spending the year at the University of Notre Dame.
- Robin Harte, Siobhán Vernon and Con O'Leary of the Mathematics Department UCC have all availed themselves of the early retirement scheme.
- Brendan McCann has taken up a one-year appointment in the Mathematics Department at UCC.
- Don Barry of the Statistics Department at UCC is on leave of absence at the Statistics Department, Yale University until January 1989.
- Seán Tobin has taken sabbatical leave from the Mathematics department of UCG for the academic year 1988/89. He is presently visiting the Mathematics Department of the University of Manitoba.
- Paddy Quinlan of the Mathematical Physics Department at UCC has retired. He was appointed Professor of Mathematical Physics at UCC in 1951.

- George Kelly has been appointed temporary acting head of the Mathematical Physics Department at UCC.

Honorary Degree Awarded to J.G. Clunie

On May 17 1988, at a special conferring ceremony in University College Cork, Professor Jim Clunie was conferred with an honorary Doctorate of Science by the National University of Ireland. He was introduced by Professor P. Barry, who gave the following address:

Professor James Gourlay Clunie is a Scottish mathematician of the first rank. He was born in St. Andrews on 26 October 1926 and attended Madras School in St. Andrews: he was DUX of the school in 1944. He entered the University of St. Andrews in 1945 having won that University's Bursary Competition: he was ranked number one in the competition for all the faculties. He graduated in 1949 with First Class Honours in Mathematics. He took his Ph.D. in 1952 at Aberdeen University under the supervision of the late A.J. Macintyre.

He was appointed to a lectureship at the University of North Staffordshire, Keele in 1952 and taught there until 1956 when he joined the Professor Walter Hayman FRS at the expanding Department of Mathematics at the Imperial College of Science and Technology, London. He taught at Imperial College until 1980 being appointed Professor of Mathematics in 1964. From 1980 to 1985, he was Senior Research Fellow at the Open University, Milton Keynes, and he has been Honorary Research Associate at the University of York since 1985. In 1959-60 he visited Massachusetts Institute of Technology.

During his twenty-five years at Imperial College, the Mathematics Department there gained world-wide recognition as one of the foremost centres for complex analysis. It attracted scholars from far and near, among them several Irish mathematicians who learned their trade from the masters Hayman and Clunie.

Professor Clunie has published more than 65 research papers, a little more than half of these in collaboration with seventeen or more mathematicians, ample testimony to his openness to new ideas, wide-ranging interests and versatility. These show him to be a mathematical analyst of real power and resourcefulness. He soon became an authority on the Wiman-Valiron method. He worked generally on power series, univalent functions, entire and meromorphic functions. The quality of his output can be judged by the high opinion

held of it by co-workers in his field, and the number of references to it. In so many of his papers he has contributed an original technique, later used by others; 'by Clunie's method' is a frequently used phrase. Recently, he has proved a conjecture of Polya's on the final set of an entire function, open since 1942.

He supervised over ten research students, particularly notable among them being Milne Anderson, David Brannan, Q.I. Rahman, Terry Sheil-Small, Derek Thomas and our own Brian Twomey.

Professor Clunie took a full share of mathematical administration. The London Mathematical Society has an even wider standing than its name would suggest. He served on its council for several years, was a Vice-President in 1967-68 and shared in the editing of its journals. He co-organised major international conferences in England and co-edited the ensuing proceedings.

His association with Irish Mathematicians began in the mid-fifties when he struck up a friendship with the late Paddy Kennedy, whose memory we cherish. Since then his circle of Irish friends has expanded, to the undoubted benefit of mathematics in Ireland. He has served the NUI in several different capacities. He was the Extern Examiner in Mathematics for the periods 1974-76 and 1983-85, and acted as a substitute in 1968 and 1986. As well, he has served on appointments and promotions boards in several of the NUI colleges.

He has watched with interest the growth of the Irish Mathematical community and through his formal and informal work, greatly aided its development.

Always a friendly face at converences and rational in discussion, he has been unfailingly helpful and generous to younger colleagues. He has a gift for patient encouragement. He has been particularly helpful to the growing mathematical community in Ireland. He has had a truly distinguished record as a mathematician. We honour him for his work, and the manner of its doing.

Millenium Scholarship

Brendan Boulter of NIHE (Dublin) was recently awarded a Millennium Science and Technology Scholarship, worth £7000, to undertake research leading to a Ph.D. The scholarship scheme was established by the Minister for Science and Technology and support includes £28,000 from the private sector, £70,000 from the Irish- American Partnership and £63,000 from the Minister's Science and Technology budget. Brendan's research will be primarily concerned with the development of parallel algorithms for initial and boundary value problems, with particular emphasis on exploiting the advantages of supercomputer

architecture. Brendan, a graduate of the DIT, has just completed an M.Sc. at NIHE (Dublin) under the supervision of Dr. John Carroll.

Computer Algebra at UCG

Recently UCG completed the signing of a joint contract with the EC for a project on *Intelligent Computer Algebra Systems*. This project aims to bring together research workers in the University of St Andrews, Scotland, in Technisches Hochschule Aachen, West Germany, and at University College Galway, under the EC Stimulation Action programme popularly known as "twinning".

Computer Algebra may simply, but not exclusively, be described as the symbolic manipulation of algebraic Mathematical expressions—compare word-processing or data-base management which manipulate words and characters. It has had applications in such diverse areas as coding theory, data encryption, communication network design, crystallography and solid state physics as well as within Mathematics itself.

The three Colleges have common interests in Algebra and have come together for this project. The project directors are respectively Dr Edmund Robertson at St Andrews, Professor Joachim Neubuser at Aachen and Dr Ted Hurley at Galway. This whole area will revolutionise the teaching and power of Mathematics and is making accessible to research workers in many diverse areas hitherto unworkable Mathematical algorithms.

The programs, written in the C language, will be developed on the Digital VAX machines in Galway and St Andrews and on a MASSCOMP in Aachen. Rapid communication over the electronic computer networks has been established between the Colleges so that results or software developed in one can be instantly communicated to the others.

Dr. Fred Klotz

Fred Klotz, who died in a tragic accident earlier this year, was well known to many of our members. He was a lecturer in Mathematics in St. Patrick's College, Dublin. Fred was the instigator and joint coordinator of the LOGO courses for mathematically gifted children in Ireland. He is commemorated by the Fred Klotz Memorial Trophy, which is awarded at the Irish National Logo Contest.

Irish Girl Wins International Computing Contest

The International Problem Solving Contest (ICPSC) is now in its eighth year. In 1987 an elementary LOGO division was introduced and the winner was John Farragher from Limerick. This year, the winner was Anne Chazarreta, a twelve year old sixth class pupil from Scoil an Spioraid Naoimh (Girls), Bishopstown, Cork.

For the last three years, experimental courses using the computer language LOGO for mathematically able children have been conducted at various centres throughout Ireland. The Cork centre is at Coláiste an Spioraid Naoimh, Bishopstown and is directed by Michael Moynihan and Declan Donovan.

IMS MEMBERSHIP

Ordinary Membership of the IMS is open to all persons interested in the activities of the Society. Application forms are available from the Treasurer and from Local Representatives. Special reciprocity rates apply to members of the IMTA and of the AMS.

Institutional Membership is a valuable support to the IMS. Institutional members receive two copies of each issue of the Bulletin and may nominate up to five students for free membership.

Subscriptions rates are listed below. The membership year runs from 1st October to 30th September. Members should make payments by the end of January either direct to the Treasurer or through Local Representatives. Members whose subscriptions are more than eighteen months in arrears are deemed to have resigned from the Society.

Ordinary Members	IR£5
IMS-IMTA Combined	IR£6.50
Reciprocity Members from IMTA	IR £1.50
Reciprocity Members from AMS	US\$6
Institutional Members	IR£35

Note: Equivalent amounts in foreign currency will also be accepted.