## CONFERENCE REPORTS

## GROUPS IN GALWAY 1986

There were 23 participants at this year's Group Theory Conference, sponsored by the Royal Irish Academy, the Irish Mathematical Society, and University College, Galway, which was held on Friday and Saturday 9th and 10th May 1986, at University College, Galway.

David Hughes (UCG) opened the Conference with his talk on "Modules and Root Systems". He described Gabriel's characterisation of hereditary algebras having a finite number of indecomposable modules, and the use of almost split sequences to categorise these modules.

Radoslav Dimitric (Kevin St), in his lecture entitled "Abelian Groups and Axiomatic Set Theory", explained Shelah's result that if Martin's Axiom holds and the Continuum Hypothesis fails, then there exist non-free abelian groups satisfying Whitehead's Condition, but that if the Axiom of Constructibility holds, then every Whitehead group is free.

Joseph Rotman (Illinois/London) spoke on "Finite Projective Planes, Graphs, and Symplectic Groups". He gave reasons for his conjecture that the collineation group of a projective plane of even order n is an intersection of conjugates of the symplectic group of degree n³ over the field with 2 elements, and showed how this might lead to a proof that there is no projective plane of order 10.

Russell Higgs' (UCD) title was "Degrees of Projective Representations". He proved that if a finite group has all its projective representations of degree a power of a fixed prime, then it is soluble, and he also mentioned other related results.

David Redmond (Maynooth) discussed the use of "Groups in Chemistry". He considered the decomposition of the action of the symmetry group of a molecule on homogeneous polynomials, and the notation and methods developed by chemists.

Colin Campbell (St Andrews) delivered the last lecture of the Conference on "Presentations for Certain Perfect Groups". He gave uniform presentations with 2 generators and 3 relations for all projective special linear groups of degree 2 over fields of odd prime order, and also for certain other groups (for instance when the field has order 8, 16, 25, 27, 49, ...).

In addition, Martin Edjvet (Brunel, London) spoke on "Group Prosentations and Simplicial Complexes", and Michael Barry (Carysfort) gave a talk on "Order Conjugacy in Groups of Lie Type". Ted Hurley made the group theoretical computer package CAYLEY available to those attending the Conference.

We would like to thank the lecturers, the sponsors, and the participants for their continued support.

Rex Dark

## PROTEXT III CONFERENCE

The Third International Conference on Text Processing Systems

22-24 October 1986, and the related

PROTEXT III SHORT COURSE

Computer-Aided Text Processing - An Introduction, 20-21 October 1986

Both events will be held in the

University Industry Centre, University College, Belfield, Dublin and are co-sponsored by the Institute for Numerical Computation and Analysis Dublin

For further information, contact: PROTEXT III, Conference Management Services, P.O. Box 5, 51 Sandycove Road, Dun Laoghaire, Co. Dublin, Ireland. Tel. 808025.