

of  $GL_n(F)$ , provided  $|F| > 5$ , and he showed how this, and related results, have been used to classify certain linear maps from a space of square matrices to itself.

Des MacHale spoke on 'The Relationship Between  $|G|$  and  $|\text{Aut } G|$  for a Finite Group'. He reported on functions  $f(n)$  such that if  $p^{f(n)}$  divides  $|G|$ , then  $p^n$  divides  $|\text{Aut } G|$ , and also on results related to the conjecture that if  $G$  is a non-cyclic  $p$ -group of order  $p^3$  or more, then  $|G|$  divides  $|\text{Aut } G|$ . He finished by mentioning a number of other open questions.

In the last lecture of the Conference, Trevor Hawkes dealt with three topics involving 'Linear Methods in Soluble Groups'. He first proved that if  $H$  is an  $F$ -projector of  $G$ , where  $F$  is a saturated formation, and if every irreducible character of  $H$  can be extended to  $G$ , then  $H$  has a normal complement. He then showed that the Fitting length of  $G$  is bounded in terms of the composition length of a Fischer subgroup (nilpotent injector). Finally he reported on groups with a fixed-point-free operator group.

Labhair Mícheál Ó'Searcóid faoi 'Comhaireamh  $p$ -Fhoghrúpaí'. David Lewis gave a talk on 'Sums of Squares in Division Algebras'.

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

*Rex Dark*

## CONFERENCE ANNOUNCEMENT

### BAIL IV

The Fourth International Conference  
on Boundary and Interior Layers-  
Computational and Asymptotic Methods

7-11 July 1986

in

Novosibirsk, USSR

Hosted by the Siberian Branch of the  
USSR Academy of Sciences

Chairman: Professor S.K. Godunov

*Institute of Mathematics, Siberian Branch of the USSR Academy of Sciences,  
Novosibirsk, USSR*

Co-Chairman: Professor J.J.H. Miller

*Numerical Analysis Group, Trinity College, University of Dublin, Ireland*

A formal First Announcement and Call for Papers will be made in due course by the Siberian Branch of the USSR Academy of Sciences in Novosibirsk.

Registration for participants from all non-socialist countries will be handled by the BAIL Secretariat in Dublin. Attendance from non-socialist countries is limited to a maximum of 80 participants, so early registration is advisable. If you are interested in attending, please contact the address below without delay. Participants from socialist countries should contact Novosibirsk directly.

Before BAIL IV you may attend the 10th ICNMFJ in BEIJING and then travel to NOVOSIBIRSK by rail via MONGOLIA. For more details read on:

The dates of the BAIL IV Conference have been harmonised with those of the 10th International Conference on Numerical Methods

of Fluid Dynamics, 23-27 June 1986, in Beijing. Participants are thus enabled to enjoy a short post-conference tour of China and then travel by rail from Beijing to Novosibirsk, departing Wednesday, 2nd July and arriving Saturday, 5th July. It is proposed that participants from Western Europe fly as a group to Moscow and then onwards to Novosibirsk in order to avail of economical air fares. In addition, it is expected that another group will travel by train from Beijing to Novosibirsk. If sufficient interest is shown, a group may also be organised to fly from Western Europe to Beijing. Further information about these travel arrangements may be obtained from the BAIL Secretariat in Dublin.

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