The 1991 Leslie Fox Prize Meeting

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THE Fifth Leslie Fox Prize meeting was held at the University of Dundee on Monday, June 24th, 1991 immediately preceding the Dundee Biennial Conference in Numerical Analysis. We are very grateful to the Conference organisers, Alistair Watson, FIMA and David Griffiths, FIMA for extending the accommodation arrangements to include the Meeting, for assisting with the registration, for arranging the excellent lunch, and for providing tea and coffee at zero cost.

This was the first time that the Fox Prize Meeting had been coupled with a Dundee meeting and, from the viewpoint of audience size and diversity this coupling was a distinct success. Even more gratifying was that among the 75 or so attendees, there were many "famous" numerical analysts in addition to many previous Fox Prize winners, not that there is any implication of exclusivity between these two classes.

One might have thought that the finalists would have been disconcerted by the wealth of talent in the audience but this was far from the case with all six speakers giving a most polished rendition of their work and setting the customary daunting task for the adjudicating committee. When one considers that the finalists were chosen from a total of 21 "valid" entries, most of which were of very high standard, an encouraging picture of activity in numerical analysis emerges. The chairman did not expand on the term "valid." I can only presume that any invalidation occurred after investigation of birth registers.

Indeed the number of finalists equalled the record of the last meeting, in part indicating the difficulties that the adjudicating committee of John Mason, FIMA (Chairman), Nancy Nichols, AFIMA and Charlie Elliott, AFIMA had in selecting this shortlist.

The order of appearance was chosen randomly by the adjudicating committee although we were not told if the algorithm or seed had changed from last year. The resulting cast list in order of appearance was:

C. J. Budd (University of Bristol)
"Convergent and Spurious Solutions of Nonlinear Elliptic Equations";

H. Zha (Stanford University)
"The Restricted SVD and its Numerical Problems";

J. Levesley (Coventry Polytechnic)
"A Chebyshev Collocation Method for Solving Symm's Integral Equation for Conformal Mapping: a Partial Error Analysis";

J. F. B. M. Kraaijevanger (University of Leiden)
"Contractivity of Runge–Kutta Methods";

B. F. Smith (Argonne National Laboratory)
"A Domain Decomposition Algorithm for Elliptic Problems in Three Dimensions";

P. D. Loach (University of Bristol)
"On Best l_2 Continuous Piecewise Polynomial Approximation."

Because of visa problems, J. Xu of Pennsylvania State University, who was selected as a finalist, was unable to attend. Since the competition is based on the presentation in addition to the paper, he was unfortunately ineligible to be considered for a prize.

After three stimulating sessions of talks with theoretical, numerical and computational content, we retired to the concluding tea and customary debate on the outcome. The only unanimity was that the adjudicating committee had a very difficult task in trying to identify the very excellent from the excellent.

John Mason then announced the prize winners, maintaining suitable suspense by announcing the second prize winners first, in a different random order. First prizes were awarded to Chris Budd and Hans Kraaijevanger, and second prizes to Hongyuan Zha, Jeremy Levesley, Barry Smith and Paul Loach.

Gene Golub, who initially suggested the idea of establishing the Prize, chaired one of the sessions and echoed the feelings of the audience in a warm tribute to Leslie, whom we were delighted had made the long journey north to attend the Meeting and to present the prizes.

Arrangements for the sixth Leslie Fox Prize Meeting and the appointment of the new adjudicating committee will be discussed at the next meeting of the IMAJNA Editorial Board. Further details of the next Meeting will be given in a forthcoming issue of the Newsletter.

(*l. to r.*). H. Zha, P. Loach, L. Fox, FIMA, J. Levesley, B. Smith, C. Budd and H. Kraaijevanger

We are very grateful to Chapman and Hall for donating book prizes that were awarded in addition to the customary cheque. Once again the quality of the field has severely deplenished the Prize Fund to which further contributions would be more than gratefully received. These contributions can be in cash or other forms of sponsorship as in the case of Chapman and Hall.

The Fund is quite independent of any organisations but Catherine Richards of the IMA has graciously agreed to accept contributions on behalf of the fund. Contributions great and small can be sent to her at Southend or to Nancy Nichols at the University of Reading, Department of Mathematics, Box 220, Reading RG6 2AX.

As a postscript, I append a list of all Fox Prize winners which, I feel, clearly illustrates the quality and breadth of entrants to this competition.

Prizewinners of Leslie Fox Prize

First Leslie Fox Prize Meeting, Imperial College, August 30th, 1985

First Prize
L. N. Trefethen (MIT)

Second Prize
N. J. Higham (Manchester)
S. P. J. Matthews (Dundee)
P. K. Sweby (Reading)
Y. Yuan (Cambridge)

Second Leslie Fox Prize Meeting, Imperial College, September 5th, 1986

First Prize
J. W. Demmel (Courant)
N. I. M. Gould (Harwell)

Second Prize
J. L. Barlow (Penn State)
J. Scott (Oxford)
A. J. Wathen (Bristol)

Third Leslie Fox Prize Meeting, Imperial College, March 28th, 1988

First Prize
N. J. Higham (Manchester)

Second Prize
T. Hagstrom (SUNY, Stony Brook)

P. T. Harker (University of Pennsylvania)
I. R. H. Jackson (Cambridge)
T. Tang (Leeds)

Fourth Leslie Fox Prize Meeting, Cambridge, September 4th, 1989

First Prize
M. Buhmann (Cambridge)
B. R. L. DeMoor (Stanford)
A. M. Stuart (Bath)

Second Prize
M. Ainsworth (Durham)
R. H. Chan (Hong Kong)
A. Edelman (MIT)
D. J. Higham (Toronto)

Fifth Leslie Fox Prize Meeting, Dundee, June 24th, 1991

First Prize
C. J. Budd (Bristol)
J. F. B. M. Kraaijevanger (Leiden)

Second Prize
J. Levesley (Coventry)
P. D. Loach (Bristol)
B. F. Smith (Argonnne)
H. Zha (Stanford)

Enigmaths by ZAG

Enigmath 18

4 × 4
A plain grid this time with the challenge being to find the key to unlocking it. As usual, the multiple of a number excludes the number itself.

1	2	3	4
5			
6			
7			

Across
1. Palindrome (*abba*)
5. Formed of two 2 digit primes $p_1 p_2$
6. Formed of two 2 digit squares $s_1 s_2$
7. Anagram of 1 across

Down
1. Palindrome (*acca*)
2. Multiple of p_1 or p_2
3. Multiple of 6 across
4. Sum of digits is a square
For the solution to Enigmath 18 see IBC.