

## XVIII INTERNATIONAL CONGRESS OF MATHEMATICIANS: 1978

The International Congress of Mathematicians which is held every four years met in Helsinki, Finland, from August 15-23, 1978. Participants numbering 3,150 from 83 countries registered for the Congress and over 500 presented their work. Most of the 30 Indians who attended the Congress were residing abroad. Those who presented their work included V. S. Varadhan, P. K. Kamthan, B. R. Seth, S. K. Jain, V. Lakshimikanthan, S. C. Bagchi and J. A. Siddiqi.

At the inauguration, Deane Montgomery, the President of the Congress, Olli Lichte, the Educational Secretary and the Lord Mayor addressed the delegates. Four field medals were given to the following outstanding mathematicians under 40 years of age: Pierre Deligne, C. Fifferman, G. A. Margulis and Daniel Quillen. Their important contributions were respectively Cohomology Algebra, Classical Analysis, Lie Groups and Algebraic K-Theory.

The Congress was divided into 19 overlapping sections. A number of symposia including one on the education of mathematics teachers was arranged.

The first address by F. J. Almgren, Jr., started on a classical note. He explained the contribution made by geometric measure theory to the study of minimal surfaces with applications to nonlinear partial-differential equations and solid and fluid mechanics. H. McKean considered a number of nonlinear shallow water wave equations. D. Gorenstein tried to show that the classification of finite simple groups under certain restrictions was nearing completion. P. Penrose reviewed the complex geometry of the natural world. R. D. Edwards dealt with the topology of manifolds and cell-like maps. S. Novikov treated the universal KDV equation for the propagation of long waves in dispersive media and gave its quasi-periodic solutions. W. Schmid gave a good account of Harish Chandra's work on semi-simple Lie groups

and pointed out some open problems. M. Kashiwara explained the new branch of Micro-local analysis and A. N. Shirayev spoke on absolute continuity and singularity of probability measures on functional spaces. The relationship between commutative algebra of partial differential equations with multi-dimensional algebraic geometry was brought out by S. T. Yau. He also gave theorems to determine, which particular Kahler manifold admitted a complete metric. A. P. Calderon dealt with commutators and singular integral operators on Lipschitz curves with applications to boundary value problem. Andre' Weil gave a popular talk on "History of mathematics: why and how". He suggested that it should be written by mathematicians with a sense of history by using mathematical ideas as tools.

S. R. S. Varadhan pointed out some problems of large deviation. P. K. Kamthan and M. Gupta gave theorems on the quasi-regular orthogonal system of sub-spaces and absolute bases. B. R. Seth showed that all transition fields were sub/super harmonic. S. K. Jain and others gave theorems on the decomposition of non-negative matrices. V. Lakshimikanthan explained the method of cone-valued Lyapunov functions and J. A. Siddiqi considered problems in the theory of uniform approximation of continuous functions on a plane arc.

By two resolutions the IMU recommended that all concerned should encourage the applications of Mathematics for the benefit of humanity and for getting new ideas, directions and problems. It also recommended that the Consultative Committee of ICM should invite an appropriate number of Applied Mathematicians at its Congresses.

The next Congress will be held in 1982 in Warsaw, Poland.

B. R. SETH.

## SEMINAR ON PRIMARY COMMUNICATIONS IN SCIENCE AND TECHNOLOGY IN INDIA

A Seminar on Primary Communications in Science and Technology in India will be held in Bangalore from 4 to 8 December 1978 at Documentation Research and Training Centre, Indian Statistical Institute, 31, Church Street, Bangalore 560 001. Papers are invited in the following areas: (1) Publication of Results of Scientific Research, (2) Quality and Standards of

Scientific Papers, (3) Printing and Publication Facilities in India. The last date for the receipt of papers is 1st November 1978. For details, please contact Sri G. Bhattacharyya, Documentation Research and Training Centre, Indian Statistical Institute, 31, Church Street, Bangalore 560 001.