

Pakistan Mathematical Society

Newsletter

Issue No. 11, April 2005

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Editorial

Pakistan Mathematical Society (PakMS) could be justifiably termed a brainchild of Prof. Dr. Qaiser Mushtaq who, realizing the absence of a national forum for mathematics, persuaded some of his colleagues and students to start an organization whose primary aim should be the development of mathematics education and reactivation of research activities in mathematics. Thus PakMS came into existence in the year 2000 under the leadership of Prof. Dr. Qaiser Mushtaq.

The constitution of PakMS was approved and subsequently elections were held to elect its executive council to run its affairs. Later on the society was registered to make it an officially recognized organ of the mathematical community of Pakistan. To realize the primary objective of the society, national seminars, group discussions and international conferences on algebra, analysis, geometry and mechanics were regularly organized to provide impetus to the mathematical community to effect improvement in mathematics education and research activities. To get the society internationally recognized, the standard of these conferences is strictly maintained. As a consequence many outstanding mathematicians from different countries of the world participated in these annual international conferences supported by the society. The society also publishes a quarterly newsletter to keep the mathematical community abreast with the latest trends and happenings in the mathematical world. The newsletters have been a thumping success in realizing the objectives of the society.

To extend the scope of mathematical activities, the society intends to add teachers training workshops, popular lectures, etc. on mathematical topics which have relevance to mathematics teachers. Furthermore, the society wishes to advance suggestions to the concerned quarters regarding the state of mathematics in Pakistan and updating of the present courses of study in mathematics. It is earnestly hoped that the society shall be able to fulfill its primary objectives by expanding its activities in the foregoing fashion. To help mathematics in general and research activities in particular, the PakMS intends to organize teacher training workshops, curriculum revision among various segments of mathematics teachers and give appraisal regarding the state of affairs of mathematics in Pakistan to the concerned quarters and advance suggestions for taking necessary steps for its improvement.

INTERVIEW WITH PROFESSOR DR P. K. JAIN

Question. Could you spell out your impression about Pakistan on this maiden visit?

Answer. I'm feeling at home in Pakistan.

Question. Could you kindly give your assessment of the 5th International Pure Mathematics Conference?

Answer. It appears to have provided a good stimulus to the researchers in mathematics and consequently it is very successful.

Question. How can Indians and Pakistani mathematicians collaborate to promote mathematics in this region of the world?

Answer. Successful collaboration between the mathematicians of two countries can be organized through exchange programme and common conferences.

Question. How does pure mathematics contribute to science, engineering etc.?

Answer. Mathematics, being the queen of all sciences, plays a predominant role in the development of the natural science and engineering. In the modern times, no science including the social sciences, can develop without the help of mathematics.

Question. How would you rank the level of research in both the countries?

Answer. About the level of mathematics in Pakistan, it is very difficult to make any comment at the moment, since the mathematicians of Pakistan whom I met at the 5th International Pure Mathematics Conference are very small in number. I notice that quiet a few are good mathematicians while many of them still need to work hard. As far as mathematicians in India are concerned, they are at various levels. Some of them are comparable to any top mathematician of the world. Again, it is the question of one's judgment, which could vary from person to person.

Question. Regarding mathematics in Pakistan, what remedial measures do you suggest to improve the level of teaching and research in mathematics?

Answer. This question has pertinence to all the countries of the world and hence can be answered through one's experience.

Question. What steps are necessary to inculcate research mindedness amongst the younger generation of mathematicians?

Answer. One should start taking steps at the grassroot level, meaning thereby the children should be taught by teachers in schools who have clear and precise concepts about the basics of mathematics.

The students should be discouraged to read cheap made-easier and help books. Students as well as teachers should be advised to read and consult other standard books than the prescribed ones. To get a clear picture of mathematical concepts, the students should be encouraged to read the masters' minds, which will help them to go a long way in the subject concerned.

Question. What additional items do you recommended for the 6th International Pure Mathematics Conference?

Answer. To increase the number of scholars and research workers in mathematics, the PakMS should increase its budget and give a helping hand to regional organizations in different provinces of Pakistan. Also PakMS should arrange seminars and workshops in the capitals of other provinces.

ELECTION OF PakMS

The elections were held on 12th March 2005 and the following were elected unopposed for the session 2005-2007:

- 1) Prof. Dr. B. A. Saleemi (President)
- 2) Prof. Dr. Qaiser Mushatq (Vice President)
- 3) Prof. Malik Abdur Rauf (General Secretary)
- 4) Maj. Mohammad Ashiq (Information Secretary)
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- 4) Maj. Tariq Maqsood
- 5) Mr. Bashir Nadeem

LUMS' WORKSHOP ON COMPUTATIONAL NUMBER THEORY AND CRYPTOGRAPHY

Dr. Sarmad Abbasi will deliver the lecture on modular arithmetic, basic public key cryptography, integer factoring and solving the discrete log problem, etc. and Prof. Arif Zaman will speak on primality testing, quadratic reciprocity, pseudo-primes, Euler pseudo-primes, Galois fields, elliptic curves, etc. on 16-17 April 2005.

LUMS INTERNATIONAL MATHEMATICS CONFERENCE

In collaboration with the School of Mathematical Sciences, Lahore, from 27-30 November 2005, the conference will cover applied mathematics, computational, industrial and pure mathematics. For full details please visit: <http://www.lums.edu.pk/~licm05>

AIR UNIVERSITY LECTURE SERIES

A series of four lectures on Lie Theory and Chaos is being organized from 18-21 April 2005 by Professor Sergei.

SCHOOL OF MATHEMATICAL SCIENCES

The School of Mathematical Science organized the 2nd World Conference on 21st Century Mathematics 2005 from 4-6 March 2005. The Conference provided an opportunity for transmission of knowledge based on the latest research. Both local and mathematicians from abroad participated.

6TH INTERNATIONAL PURE MATHEMATICS CONFERENCE 2005

The 6th International Pure Mathematics Conference 2005 (6th IPMC 2005) is a thematic conference on Algebra, Geometry, Analysis and Mechanics. It will be held in Islamabad from 20th to 22nd August 2005. It will provide a stimulating opportunity to meet expert from various countries in a variety of branches of Algebra, Analysis, Geometry, and Mechanics. The entire conference is organized under one roof four-star hotel in the modern peaceful, and beautiful federal capital of Pakistan located at the footsteps of scenic Margalla Hills.

Several recreational trips will be organized in and around Islamabad introducing the unique local and multi-ethnic culture. On-line registration form information is available at <http://www.pmc.org.pk>.

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5TH PakMS NATIONAL SEMINAR

Eminent scholar Maud Mufti will speak on ‘The Muslim World Today’. The seminar will be held at the Auditorium, Pakistan Academy of Sciences, 5th Constitution Avenue, Islamabad.

ABEL PRIZE

The Norwegian Academy of Science and Letters has decided to award the Abel Prize for 2005 to Peter D. Lax, Courant Institute of Mathematical Sciences, New York University. Peter Lax receives the Abel Prize for his groundbreaking contributions to the theory and application of partial differential equations and to the computation of their solutions. He is expected to receive the Abel Prize from His Majesty, King Harald V of Norway, in Oslo on May 24th. The honor is accompanied by a prize of \$980,000.

RAMANUJAN PRIZE

The Ramanujan Prize for Young Mathematicians from Developing Countries is a new prize which will be awarded by the International Centre for Theoretical Physics in Trieste, through a selection committee appointed in conjunction with IMP. The first winner will be announced in 2005. Nominations should be sent no later than 31 July 2005 to: director@ictp.it

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