



# Advanced Training in Mathematics Schools

Supported by National Board for Higher Mathematics

## Advanced Training School for Lecturers in Algebra and Number Theory

Venue: Panjab University, Chandigarh

December 15 - 31, 2009

Conveners: **Madhu Raka & Gurmeet K. Bakshi**

### Brief description of ATM Schools

Advanced Training in Mathematics (ATM) Schools are a joint effort of more than 50 active researchers across the country with support from the National Board for Higher Mathematics. The programmes are conducted in reputed mathematics departments in summer and winter each year. In these Schools, the emphasis will be on problems solving and on highlighting inter-relations of basic subjects in mathematics. The schools are offered mainly for Ph.D. students and lecturers. Presently we invite applications for participation in

### ATM School for Lecturers in Algebra and Number Theory

#### Brief description of the school

This program is meant for Lecturers in Colleges and Universities who do teaching of postgraduate courses in Algebra and Number Theory.

In this school the following topics will be covered:

**Algebra:** Review of Ring Theory, UFD's, PID's Theory, Chain Conditions, Rational canonical form & Jordan canonical form; Review of Basic Field Theory, cyclotomic extensions, solvability, cyclic extensions.

**Number Theory:** Primitive roots and indices, Quadratic reciprocity, Theory of Partitions; Hermite's estimates on the minima of positive definite quadratic forms and their applications; Minkowski's Theorem in Geometry of Numbers and its applications; Distribution of primes, Prime Number Theorem.

#### Eligibility for participation

Applications are invited from lecturers in mathematics who have passed NET/SET or equivalent examination and who are teaching at a college/university. Students doing M.Phil. may also be considered for the school. Teachers below the age of 30 will be given preference.

#### National Coordinating Committee

Director	R. S. Kulkarni	IIT Bombay
Secretary	J. K. Verma	IIT Bombay
Members	S. D. Adhikari	HRI, Allahabad
	Satya Deo	HRI, Allahabad
	S. A. Katre	Pune U., Pune
	Shobha Madan	IIT Kanpur
	I. B. S. Passi	Panjab U., Chandigarh
	R. A. Rao	TIFR, Mumbai

### Financial Support

Selected participants will be paid III-AC return train fare from their place of work/home town to the venue by shortest route and provided with accommodation and local hospitality.

### How to Apply

The syllabus, applications form and other information about the programme is available on the website:

<http://www.bprim.org/atm>

Applications may also be made on plain paper, giving the following information:

Name, Date of Birth, Age, Gender, Institute/Department, Areas of interest, Address for correspondence, email address, City, State, Pincode, Academic Record: B.Sc./M.Sc. with names of the Institutes, additional information (if any). These should be attested by Head/Principal of the institute.

### Completed application forms should reach

Prof. Madhu Raka  
Coordinator, ATML  
Department of Mathematics,  
Panjab University, Chandigarh-160014  
e-mail: [mraka@pu.ac.in](mailto:mraka@pu.ac.in)  
Phone: (O) 0172-2534520, 2534528,  
(R) 0172-2771647  
Fax: 0172-2541132

by **Wednesday, 30th Sept., 2009**. List of selected candidates will be posted on the websites of ATM Schools on **Saturday, 10th Oct., 2009**.

### Resource persons

J. K. Verma	IIT Bombay
Dinesh Khurana	IISER, Mohali
Gurmeet K. Bakshi	Panjab University, Chandigarh
S. D. Adhikari	HRI, Allahabad
Madhu Raka	Panjab University, Chandigarh
A. K. Agarwal	Panjab University, Chandigarh

### Unity of Mathematics Lectures

I. B. S. Passi and R. J. Hans-Gill