



# Advanced Training in Mathematics Schools

## Instructional School in Algebra for Lecturers

Supported by National Board for Higher Mathematics  
and

Centre for Excellence in Mathematics, Kumaun University, Almora

Venue: Kumaun University, Almora (Uttarakhand)

20 February-3 March, 2012

Conveners: *H. S. Dhami, A. J. Parameswaran and N. Raghavendra*

### Brief description of ATM Schools

Advanced Training in Mathematics (ATM) Schools are a joint effort of a large number of 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 problem 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

### Instructional School for Lecturers in Algebra

In this school, a semester long course on basic abstract algebra will be covered. It will have 12 lectures each on important topics in the theory of groups, rings, fields and Galois theory. A brief syllabus is: group actions, groups of symmetries of Platonic solids, Sylow theorems, general linear group, special linear group, orthogonal and unitary groups, unique factorization domains, principal ideal domains, modules over them and their application to abelian groups and canonical forms, basic notions of field extensions, fundamental theorem of Galois theory and its applications to ruler and compass constructions. The school will emphasize problem solving and connections with other branches of mathematics such as number theory, geometry and topology.

### 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 35 will be given preference.

### NBHM Committee for the ATM Programme

Prof. S. A. Katre	Pune U., Pune
Prof. S. Kesavan	IMSc, Chennai
Prof. Shobha Madan	IIT Kanpur
Prof. N. Nitsure	TIFR, Mumbai
Prof. J. K. Verma (Convener)	IIT Bombay

### 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.atmschools.org>

Application 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. H. S. Dhami  
Mathematics Department  
SSJ Campus  
Kumaun University  
Almora (Uttarakhand)  
e-mail: [drhsdhami@gmail.com](mailto:drhsdhami@gmail.com)

by **January 20, 2012**. List of selected candidates will be posted on the websites of ATM Schools on January 23, 2012.

### Resource persons

Chanchal Kumar	IISER, Mohali
Manoj Kummini	CMI, Chennai
A. J. Parameswaran	TIFR, Mumbai
K. N. Raghavan	IMSc, Chennai
N. Raghavendra	HRI, Allahabad
K. V. Subrahmanyam	CMI, Chennai