

## **National Centre for Mathematics**

www.ncmath.org
(A joint centre of TIFR and IIT Bombay)

## **Advanced Training in Mathematics School**

www.atmschools.org
Supported by National Board for Higher Mathematics





# **ATM Workshop on Topology**

Venue: Institute of Mathematical Sciences, Chennai 4th - 9th February, 2013

**Organiser: Prof. Parameswaran Sankaran** 

### **Brief description of ATM Schools**

Advanced Training in Mathematics (ATM) Schools are a joint effort of a large number of mathematicians across the country, with support from the National Board of Higher Mathematics. The programmes are conducted in reputed mathematics institutions in the summer and winter every year. The emphasis in these Schools is on solving problems, and on the relations between basic areas of mathematics. The schools are intended mainly for Ph.D. Students and lecturers. Applications are now invited for participation in the following School.

#### **Workshop on Topology**

There will be three courses of lectures in the Workshop, one on each of the following topics: (1) Homotopy groups of spheres, (2) Steenrod algebra and its dual, and, (3) Complex cobordism and formal group laws. It is expected that the various concepts, tools and techniques which will be developed in the courses will be of use in algebraic topology, not only in understanding homotopy group of spheres but also in many other contexts. These concepts include the notions of spectra, complex cobordism, spectral sequences, cohomology operations, etc. As such they should form part of the standard tool-kit of any advanced graduate student wanting to work in algebraic or differential topology.

## Eligibility for participation

The Workshop is meant for research scholars, post-doctoral fellows, and researchers working in the broad area of topology. The participant is expected to be familiar with basic notions such as homology and cohomology theory. In all, about 25 applicants will be selected for participation. Preference will be given to candidates who have attended an Advanced Instructional School in topology or a related area.

### **Financial Support**

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

### **How to Apply**

Application form and other information about the program are available on the website:

http://atmschools.org

Completed application should reach

Prof. Parameswaran Sankaran ATM Workshop in Topology Institute of Mathematical Sciences CIT Campus, Taramani Chennai 600113.

email: sankaran@imsc.res.in

latest by 2nd November, 2012.

List of selected candidates will be posted on the ATM website by 7th November, 2012.

#### **Resource Persons**

Prof. Goutam Mukherjee,
ISI, Kolkata.
Prof. Parameswaran Sankaran,
IMSc, Chennai.
Prof. A. R. Shastri,
IIT Bombay, Mumbai.