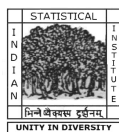


# INDIAN STATISTICAL INSTITUTE

BANGALORE CENTRE  
STATISTICS AND MATHEMATICS UNIT

Telephone: 080-28483002/003/004/005/006  
Telegram: STATISTICA  
Fax: 080-28484265



8<sup>th</sup> Mile, Mysore Road  
R.V. College Post  
BANGALORE 560 059, INDIA

## Unity in Mathematics lectures

As part of the ongoing programme “Advanced Instructional School (AIS) in Algebraic Combinatorics” we are organizing Unity in Mathematics Lectures during July 1- 5, 2013 at 4.15 pm.

**Speaker :** Professor Ram Murty (Queen's University, Canada)

**Title :** Codes, Lattices and Theta Functions

**Dates :** July 1, 2 and 4, 2013

**Abstract:** We will give a short survey of theta functions attached to lattices and their applications to various questions in combinatorics such as sphere packing.

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**Speaker :** Professor Navin M. Singhi (TIFR, Mumbai)

**Title :** Is one eye enough to see an object?

**Date :** July 3, 2013

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**Speaker :** Professor R.B. Bapat (ISI, Delhi)

**Title :** A spectral algorithm for the consecutive ones problem

**Date :** July 5, 2013

**Abstract:** Given a 0-1 matrix, consider the problem of permuting the columns so that the ones in each row are consecutive, or deciding that no such permutation exists. This problem arises in several applications, particularly in the seriation problem in archeology. We describe an algorithm for the problem, due to Atkins, Boman and Hendrickson (1999), based on the eigenvector corresponding to the smallest positive eigenvalue of a certain Laplacian matrix.

**Venue: Auditorium (II Floor)**

**All are welcome.**

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If you wish to receive our seminar announcements through e-mail send a mail to : [statmath@isibang.ac.in](mailto:statmath@isibang.ac.in)  
Seminar announcements are available at: <http://www.isibang.ac.in/~statmath/cgi-bin/seminar.cgi>