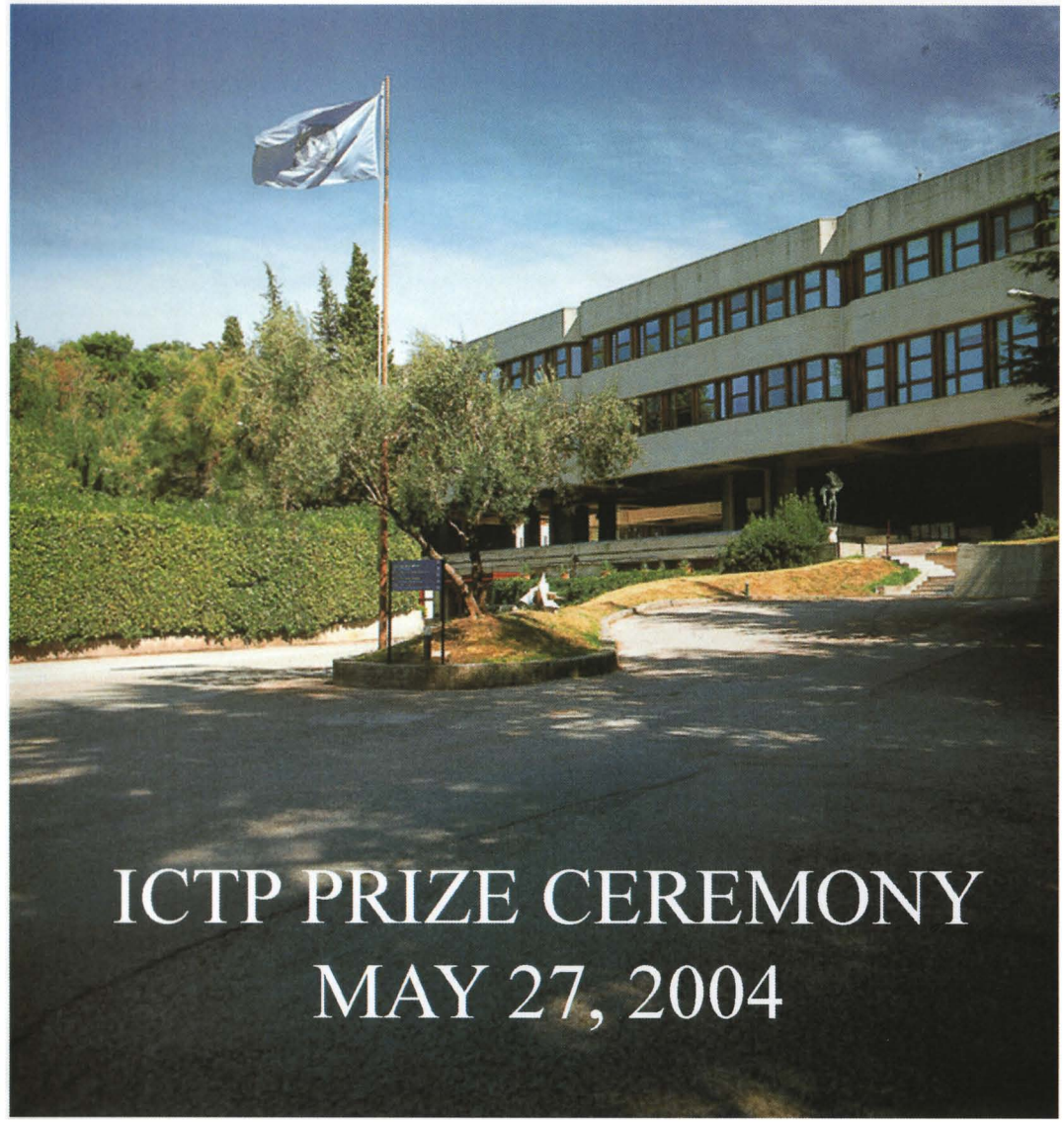
united nations
educational, scientific
and cultural
organization

international atomic
energy agency

the
abdus salam
international centre for theoretical physics



ICTP PRIZE CEREMONY
MAY 27, 2004

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MANINDRA AGRAWAL

Citation for the award of the 2003 ICTP Prize

The 2003 ICTP Prize is awarded to Manindra Agrawal of the Indian Institute of Technology, Kanpur.

In 2002, Manindra Agrawal, working with two undergraduate students, Neeraj Kayal and Nitin Saxena, solved the problem of finding a polynomial-time algorithm for testing whether a given number is prime, the so called "Primality" problem. Together with the harder problem of Prime Factorization, Primality is a famous problem in computational complexity which also plays an important role in modern cryptography.

The Agrawal-Kayal-Saxena algorithm opens the possibility for speeding up mathematical computations in many areas of number theory and it might lead to implementations that are competitive with the most sophisticated probabilistic methods.

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The 2003 ICTP Prize

will be awarded to

MANINDRA AGRAWAL

(Indian Institute of Technology, Kanpur)

on

Thursday, May 27, 2004

in the Main Lecture Hall
of the ICTP Main Building

at 16.00 hrs.

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The presentation of the Prize by His Excellency Mr. Himachal Som, Ambassador of India to Italy, will be followed by the 2003 ICTP Prize Lecture by Manindra Agrawal:

An Efficient Characterization of Prime Numbers

Abstract:
In this talk, I will present a modular equation characterizing prime numbers. In addition, the equation can be efficiently verified. This characterization is based on the AKS primality test.

All are most cordially invited to attend.