

# SCHOOL ON MATHEMATICS IN STRING AND FIELD THEORY

**2 – 13 JUNE 2003**

*MIRAMARE, TRIESTE, ITALY*

## TOPICS:

- Equivariant Cohomology and Instanton Physics
- Introduction to Complex Geometry
- Calabi-Yau and Algebraic Geometry
- Special Holonomy Manifolds
- Super Potentials and Matrix Models
- Geometry of Plane Waves and Penrose Limits

The purpose of this School is to introduce the listed topics in a pedagogical manner. The lectures are aimed primarily at graduate students and young researchers working on string theory or mathematical aspects of supersymmetric field theory. It is expected that the participants have a basic knowledge of string theory, field theory, supersymmetry and some differential geometry.

## PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the School. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee.

The **Application Form** is obtainable from the ICTP WWW server: <http://agenda.ictp.trieste.it/smr.php?1506> (which will be constantly up-dated) or from the activity Secretariat. It should be completed and returned before **15 March 2003** to:

**School on Mathematics in String and Field Theory**  
(smr 1506) (c/o Ms. Suzie Radosic)  
the Abdus Salam International Centre for Theoretical Physics  
Strada Costiera 11, 34014 Trieste, Italy

or

[smr1506@ictp.trieste.it](mailto:smr1506@ictp.trieste.it)

(please save and send file attachments in RTF format)

**Telephone: +39-040-2240226      Telefax: +39-040-2240304**

**E-mail: [smr1506@ictp.trieste.it](mailto:smr1506@ictp.trieste.it)**

**ICTP Home Page: <http://www.ictp.trieste.it/>**

## DIRECTORS

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## LOCAL ORGANIZERS

**Edi GAVA** (*INFN/ICTP*)

**George THOMPSON** (*ICTP*)

## List of Lecturers

**B. ACHARYA** (*Rutgers*)

**P. ASPINWALL** (*Duke*)

**M. BLAU** (*ICTP*)

**R. DIJKGRAAF** (*Univ. Amsterdam*)

**A. KLEMM** (*Humboldt University, Berlin*)

**M. MARINO** (*Harvard*)

**G. MOORE** (\*) (*Yale*)

**N. NEKRASOV** (*IHES, Paris*)

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(\*) to be confirmed

**DEADLINE**  
for requesting participation

**15 March 2003**