# A Colloquium on Geometry

in honour of Professor M.S. Narasimhan to celebrate his 70<sup>th</sup> birthday

### The Abdus Salam International Centre for Theoretical Physics (Trieste)

December 2-6, 2002

Co-sponsored by:

### The Abdus Salam International Centre for Theoretical Physics International School for Advanced Studies (SISSA)

All lectures will be held in the Main Lecture Hall of the Abdus Salam International Centre for Theoretical Physics

## Programme

#### Monday, December 2

9:00 – 10:00 **Registration:** ICTP Main Bldg, Lobby (subsequently in Room 106, Main Bldg, first floor)

10:00 Opening

10:15 G. Harder, Moduli spaces in arithmetics

11:45 S. Ramanan, A remark on traditional vanishing theorems

14:30 J.-M. Drezet, Fine moduli spaces of sheaves with many endomorphisms

16:00 P. Newstead, Some applications of Hecke transformations

#### Tuesday, December 3

10:00 A. Beauville, The theta divisor of a vector bundle

- 11:30 M.S. Raghunathan, The space of morphisms of an affine curve in a homogeneous space
- 14:30 T. R. Ramadas, The "Harder-Narasimhan trace" and unitarity of the Hitchin connection
- 16:00 C.S. Seshadri, M.S. Narasimhan and his work

18:30 Reception

#### Wednesday, December 4

- 10:00 M. F. Atiyah, A look at the history of moduli spaces
- 11:30 M. Maruyama, The elementary transformation as a tool of computation
- 14:30 N. Nitsure, Representability of  $GL_E$
- 16:00 Li Jiyau, H-E metrics on parabolic stable bundles

#### Thursday, December 5

10:00 N. Hitchin, The geometry of the B-field

11:30 G. Trautmann, Stable reduction for families of vector bundles

14:30 R. Parthasarathy, Dirac operators in representation theory — a survey of two topics

16:00 H. Lange, On the Hilbert scheme of a Prym variety

#### Friday, December 6

10:00 C. Soulé, Rank two stable bundles on Riemann surfaces and Arakelov theory

11:30 S. Kumar, A conjectural generalization of n! result to arbitrary groups