The Abdus Salam International Centre for Theoretical Physics

Summer School and Conference on Automorphic Forms and Shimura Varieties

Organizer(s): Directors: L. Fargues, B.C. Ngo, D. Prasad
Local Organizer(s): R. Ramakrishnan
Trieste - Italy, 09 - 27 July 2007

Final programme

Monday, 9 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

08:30 - 10:30	(Room: Adriatico Guest House (Lower Level 1)) --- REGISTRATION AND ADMINISTRATIVE FORMALITIES ---
10:30 - 10:45	**K.R. Sreenivasan** / *ICTP Director, Trieste, Italy* **Opening address**
10:45 - 11:45	**D. Prasad** / *TIFR, Mumbai, India/IAS, Princeton, USA* **Harmonic analysis on the adeles - Tate's thesis**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**A. Nair** / *TIFR, Mumbai, India* **Automorphic forms on GL(2)**
15:15 - 16:15	**G. Henniart** / *Université de Paris-Sud, Orsay, France* **Local representation theory**
16:30 - 17:30	**T.N. Venkataramana** / *TIFR, Mumbai, India* **Introduction to algebraic groups (Tutorial)**

Tuesday, 10 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

09:30 - 10:30	**D. Prasad** / *TIFR, Mumbai, India/IAS, Princeton, USA* **Harmonic analysis on the adeles - Tate's thesis**
10:30 - 10:45	--- break ---
10:45 - 11:45	**A. Nair** / *TIFR, Mumbai, India* **Automorphic forms on GL(2)**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**G. Henniart** / *Université de Paris-Sud, Orsay, France* **Local representation theory**
15:00 - 15:30	--- break ---
15:30 - 16:30	**D. Prasad** / *TIFR, Mumbai, India/IAS, Princeton, USA* **Introduction to class field theory (Tutorial)**
18:30 - 20:30	--- RECEPTION (on the Terrace at Adriatico Guest House) ---

Wednesday, 11 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

09:30 - 10:30	**D. Prasad** / *TIFR, Mumbai, India/IAS, Princeton, USA* **Harmonic analysis on the adeles - Tate's thesis**
10:30 - 10:45	--- break ---
10:45 - 11:45	**A. Nair** / *TIFR, Mumbai, India* **Automorphic forms on GL(2)**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**G. Henniart** / *Université de Paris-Sud, Orsay, France* **Local representation theory**
15:00 - 15:30	--- break ---
15:30 - 16:30	**B.-C. Ngo** / *Université de Paris-Sud, Orsay, France* **Introduction to function fields (Tutorial)**

Thursday, 12 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

09:30 - 10:30	**B.-C. Ngo** / *Université de Paris-Sud, Orsay, France* **The Langlands correspondence over function fields**
10:30 - 10:45	--- break ---
10:45 - 11:45	**C.S. Rajan** / *TIFR, Mumbai, India* **Introduction to L-functions (Survey)**
11:45 - 14:00	--- Lunch break ---

14:00 - 15:00	**G. Henniart** / *Université de Paris-Sud, Orsay, France* **Local representation theory**
15:00 - 15:30	--- break ---
15:30 - 16:30	**C.S. Rajan** / *TIFR, Mumbai, India* **Analytic theory of L-functions**

Friday, 13 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

09:30 - 10:30	**B.-C. Ngo** / *Université de Paris-Sud, Orsay, France* **The Langlands correspondence over function fields**
10:30 - 10:45	--- break ---
10:45 - 11:45	**C.S. Rajan** / *TIFR, Mumbai, India* **Analytic theory of L-functions**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**J.S. Edixhoven** / *Leiden University, Leiden, The Netherlands* **Introduction to modular curves (Survey)**
15:00 - 15:30	--- break ---
15:30 - 16:30	**T.N. Venkataramana** / *TIFR, Mumbai, India* **Cohomological preliminaries (Tutotrial)**

VENUE: Main Lecture Hall (ICTP Main Building) (Room:Main Building Main Lecture Hall)

16 July 2007

09:30 - 10:30	**B.-C. Ngo** / *Université de Paris-Sud, Orsay, France* **The Langlands correspondence over function fields**
10:30 - 10:45	--- break ---
10:45 - 11:45	**C.S. Rajan** / *TIFR, Mumbai, India* **Analytic theory of L-functions**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**J.S. Edixhoven** / *Leiden University, Leiden, The Netherlands* **Modular curves**
15:00 - 15:30	--- break ---
15:30 - 16:30	**P.-H. Chaudouard** / *Université de Paris-Sud, Orsay, France* **Introduction to trace formula (Survey)**
16:30 - 17:30	**Bao-Chau Ngo** / *Université Paris-Sud, Orsay, France* **Public Lecture "Introduction to Hitchin Fibration and Fundamental Lemma"**

Tuesday, 17 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30	**P.-H. Chaudouard** / *CNRS/Université de Paris-Sud, Orsay, France* **Introduction to the trace formula**
10:30 - 10:45	--- break ---
10:45 - 11:45	**T.N. Venkataramana** / *TIFR, Mumbai, India* **Cohomology of Shimura varieties**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**J.S. Edixhoven** / *Leiden University, Leiden, The Netherlands* **Modular curves**
15:00 - 15:30	--- break ---
15:30 - 16:30	**D. Jiang** / *University of Minnesota, Minneapolis, USA* **Langlands functoriality (Survey)**

Wednesday, 18 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30	**P.-H. Chaudouard** / *CNRS/Université de Paris-Sud, Orsay, France* **Introduction to the trace formula**
10:30 - 10:45	--- break ---
10:45 - 11:45	**T.N. Venkataramana** / *TIFR, Mumbai, India* **Cohomology of Shimura varieties**
11:45 - 14:00	--- Lunch break ---
14:00 - 15:00	**J.S. Edixhoven** / *Leiden University, Leiden, The Netherlands* **Modular curves**
15:00 - 15:30	--- break ---
15:30 - 16:30	**L. Fargues** / *Université de Paris-Sud, Orsay, France* **Points on Shimura varieties**
16:30 - 16:40	--- Break ---
16:40 - 17:00	**Neven Grbac** / *University of Zagrab, Zagreb, Croatia* **On the residual spectra of inner forms of split classical groups**
17:00 - 17:20	**Ilhan Ikeda** / *Istanbul Bilgi University, Istanbul, Turkey* **Linear equivalence of Eisenstein series**

Thursday, 19 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30	**P.-H. Chaudouard** / *CNRS/Université de Paris-Sud, Orsay, France* **Introduction to the trace formula**

10:30 - 10:45 --- break ---

10:45 - 11:45 **T.N. Venkataramana** / *TIFR, Mumbai, India*
Cohomology of Shimura varieties

11:45 - 14:00 --- Lunch break ---

14:00 - 15:00 **C.F. Yu** / *Academia Sinica, Taiwan, China*
Leaves on Shimura varieties

15:00 - 15:30 --- break ---

15:30 - 16:30 **L. Fargues** / *Université de Paris-Sud, Orsay, France*
Points on Shimura varieties

16:30 - 16:40 --- Break ---

16:40 - 17:00 **Qendrim Gashi** / *University of Chicago, Chicago IL, USA*
Toric varieties associated with root systems

17:00 - 17:20 **Marcela Hanzer** / *University of Zagreb, Zagreb, Croatia*
Aubert involution and unitarity

Friday, 20 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30 **L. Fargues** / *Université de Paris-Sud, Orsay, France*
Points on Shimura varieties

10:30 - 10:45 --- break ---

10:45 - 11:45 **D. Jiang** / *University of Minnesota, Minneapolis, USA*
On Langlands functoriality: constructive method

11:45 - 14:00 --- Lunch break ---

14:00 - 15:00 **C.F. Yu** / *Academia Sinica, Taiwan, China*
Leaves on Shimura varieties

15:00 - 15:30 --- break ---

15:30 - 16:30 **D. Jiang** / *University of Minnesota, Minneapolis, USA*
On Langlands functoriality: constructive method

16:30 - 16:40 --- Break ---

16:40 - 17:00 **Manuel Cruz Lopez** / *University of Guanajuato, Guanajuato Gto, Mexico*
On Q-invariant Adele valued functions on adeles

17:00 - 17:20 **Harald Grobner** / *University of Vienna, Vienna, Austria*
On the cohomology of arithmetic groups

CONFERENCE (Room:Main Building Main Lecture Hall)

23 July 2007

09:30 - 10:30 **D. Jiang** / *University of Minnesota, Minneapolis, USA*
Shalika models and functoriality

10:30 - 11:00 --- Coffee break ---

11:00 - 12:00 **T.N. Venkataramana** / *TIFR, Mumbai, India*
Jordan decomposition in discrete groups

12:00 - 14:00 --- Lunch break ---

14:00 - 15:00 **S. Wang** / *AMSS-CAS, Beijing, China*
Local and global conjugacy in reductive groups

15:00 - 15:15 --- break ---

15:15 - 16:15 **D. Whitehouse** / *Institute for Advanced Study, Princeton, USA*
Applications of the relative trace formula to central L-values

16:15 - 16:30 --- break ---

16:30 - 17:30 **P.-H. Chaudouard** / *CNRS/Université de Paris-Sud, Orsay, France*
Toric varieties and the homology of truncated affine springer fibers

Tuesday, 24 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30 **W. Luo** / *Ohio State University, Columbus, USA*
An equidistribution result on the Siegel modular varieties

10:30 - 11:00 --- Coffee break ---

11:00 - 12:00 **S. Morel** / *Institute for Advanced Study, Princeton, USA*
L-function of the intersection complex on certain unitary Shimura varieties

12:00 - 14:00 --- Lunch break ---

14:00 - 15:00 **G. Henniart** / *Université de Paris-Sud, Orsay, France*
On mod. p representations of reductive p-adic groups

15:00 - 15:15 --- break ---

15:15 - 16:15 **A. Pal** / *Imperial College, London, UK*
p-adic Langlands in characteristic p

16:15 - 16:30 --- break ---

16:30 - 17:30 **M. Bertolini** / *Unversity of Milano, Milano, Italy*
Higher cycles and exotic Heegner points

Wednesday, 25 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30 **E. Mantovan** / *Caltech, Pasadena, USA*
Toroidal compactifications of Shimura varieties of PEL type

10:30 - 11:00 --- Coffee break ---

11:00 - 12:00 **M. Harris** / *Université Paris 7, Paris, France*
Construction of automorphic Galois representations

12:00 - 14:00 --- Lunch break ---

14:00 - 15:00 **R. Raghunathan** / *Indian Institute of Technology, Mumbai, India*
Hecke operators and zeros of L-functions

15:00 - 15:15 --- Break ---

15:15 - 16:15 **G. Muic** / *University of Zagreb, Zagreb, Croatia*
Degenerate Eisenstein series and unipotent unitary representations for split classical groups

Thursday, 26 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30 **M. Strauch** / *University of Cambridge, Cambridge, UK*
On the ramification in the Lubin-Tate tower

10:30 - 11:00 --- Coffee break ---

11:00 - 12:00 **E. Viehmann** / *University of Bonn, Bonn, Germany*
The global structure of Rapoport-Zink spaces

12:00 - 14:00 --- Lunch break ---

14:00 - 15:00 **C.F. Yu** / *Academia Sinica, Taiwan, China*
On Kottwitz-Rapoport strata and Deligne-Lusztig varieties

15:00 - 15:15 --- break ---

15:15 - 16:15 **U.K. Anandavardhanan** / *Indian Institute of Technology, Mumbai, India*
Root numbers of Asai-L-functions

16:15 - 16:30 --- break ---

16:30 - 17:30 **A. Nair** / *TIFR, Mumbai, India*
On the Grothendieck motive of a Shimura variety

Friday, 27 July 2007 (Room:Main Building Main Lecture Hall)

09:30 - 10:30 **U. Goertz** / *University of Bonn, Bonn, Germany*
Affine Deligne-Lusztig varieties in the Iwahori case

10:30 - 11:00 --- Coffee break ---

11:00 - 12:00 **C.S. Rajan** / *TIFR, Mumbai, India*
On spectrum and arithmetic

12:00 - 14:00 --- Lunch break ---

14:00 - 14:00 --- FREE AFTERNOON ---