

**School on Automorphic Forms on $GL(n)$
(31 July - 18 August 2000)**

*Supported by the European Commission, Research DG, Human Potential Programme,
High-Level Scientific Conferences HPCF-CT-1999-00140*

FINAL PROGRAMME

VENUE: MAIN LECTURE HALL, MAIN BUILDING

Week 1 (31 July - 4 August)

Monday, 31 July

- 8:30 - 12:00 Registration and administrative formalities
- 14:00 Opening
- 14:15 - 15:15 M.S. Raghunathan (T.I.F.R., Mumbai, India)
 $L^2(G/\Gamma)$ and Automorphic forms (I)
- 15:45 - 16:45 T.N. Venkataramana (T.I.F.R., Mumbai, India)
Classical Modular Forms (I)

Tuesday, 1 August

- 9:30 - 10:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
 $L^2(G/\Gamma)$ and Automorphic forms (II)
- 11:00 - 12:00 T.N. Venkataramana (T.I.F.R., Mumbai, India)
Classical Modular Forms (II)
- 14:00 - 15:00 Discussion hour
- 15:30 - 16:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
Review of Abelian Class Field Theory (I)
- 18:30 Reception (Main Building Terrace)

Wednesday, 2 August

- 9:30 - 10:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
 $L^2(G/\Gamma)$ and Automorphic forms (III)
- 11:00 - 12:00 T.N. Venkataramana (T.I.F.R., Mumbai, India)
Classical Modular Forms (III)
- 14:00 - 15:00 D. Prasad (Mehta Research Institute, Allahabad, India)
Review of representation theory of $GL(n)$ over a p -adic field (I)
- 15:30 - 16:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
Review of Abelian Class Field Theory (II)

Thursday, 3 August

- 9:30 - 10:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
 $L^2(G/\Gamma)$ and Automorphic forms (IV)
- 11:00 - 12:00 T.N. Venkataramana (T.I.F.R., Mumbai, India)
Classical Modular Forms (IV)
- 14:00 - 15:00 D. Prasad (Mehta Research Institute, Allahabad, India)
Review of representation theory of $GL(n)$ over a p -adic field (II)
- 15:30 - 16:30 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
Classical Modular Forms and L-functions

Friday, 4 August

- 9:30 - 10:30 D. Prasad (Mehta Research Institute, Allahabad, India)
Review of representation theory of $GL(n)$ over a p -adic field (III)
- 11:00 - 12:00 T.N. Venkataramana (T.I.F.R., Mumbai, India)
Review of Abelian Class Field Theory (III)
- 15:00 - 16:00 G. Harder (Universität Bonn/Max-Planck-Inst. für Math., Germany)
An overview of Langlands programme (I)
- 16:30 - 17:30 G. Harder (Universität Bonn/Max-Planck-Inst. für Math., Germany)
An overview of Langlands programme (II)

Week 2 (7 - 11 August)

Monday, 7 August

- 9:30 - 10:30 D. Prasad (Mehta Research Institute, Allahabad, India)
Review of representation theory of $GL(n)$ over a p -adic field (IV)
- 11:00 - 12:00 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
L-functions for $GL(n)$ (I)
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
The local Langlands correspondence for $GL(n)$ over p -adic fields (I)
- 15:30 - 16:30 M.S. Raghunathan (T.I.F.R., Mumbai, India)
 $L^2(G/\Gamma)$ and Automorphic forms (V)

Tuesday, 8 August

- 9:30 - 10:30 D. Prasad (Mehta Research Institute, Allahabad, India)
Base Change Theory (I)
- 11:00 - 12:00 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
L-functions for $GL(n)$ (II)
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
The local Langlands correspondence for $GL(n)$ over p -adic fields (II)

Wednesday, 9 August

- 9:30 - 10:30 D. Prasad (Mehta Research Institute, Allahabad, India)
Base Change Theory (II)
- 11:00 - 12:00 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
L-functions for $GL(n)$ (III)
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
The local Langlands correspondence for $GL(n)$ over p -adic fields (III)

Wednesday, 9 August (continued)

Participants talks (in Room C, Terrace Level)

- 15:30 - 16:00 S. Salamanca (New Mexico State University, Las Cruces, U.S.A.)
On strictly unitarily small representations for real Lie groups.
- 16:00 - 16:30 H. Verrill (University of Copenhagen, Denmark)
Modular mod l Galois representations with exceptional image.

Thursday, 10 August

- 9:30 - 10:30 G. Harder (Universität Bonn, Germany)
Trace Formula and its applications (I)
- 11:00 - 12:00 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
L-functions for $GL(n)$ (IV)
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
The local Langlands correspondence for $GL(n)$ over p -adic fields (IV)

Participants talks (in Room C, Terrace Level)

- 15:30 - 16:00 S. Devlin (University of Maryland, College Park, U.S.A.)
Uniqueness of Whittaker Models for some supercuspidals of the n -fold Metaplectic Cover of $SL(n, F)$, F non-archimedian local.
- 16:00 - 16:30 A. Saikia (University of Cambridge, U.K.)
A simple proof of a lemma of Coleman.
- 16:30 - 17:00 A. Prasad (University of Chicago, U.S.A.)
"Almost unramified" discrete spectrum for a split reductive group over $F_q(t)$.

Friday, 11 August

- 9:30 - 10:30 G. Harder (Universität Bonn, Germany)
Trace Formula and its applications (II)
- 11:00 - 12:00 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
L-functions for $GL(n)$ (V)
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
The local Langlands correspondence for $GL(n)$ over p -adic fields (V)

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FINAL CONFERENCE

Week 3 (14 - 18 August)

VENUE: MAIN LECTURE HALL, MAIN BUILDING

Monday, 14 August

- 9:30 - 10:30 J. Cogdell (Oklahoma State University, Stillwater, U.S.A.)
On lifting from classical groups to $GL(n)$.
- 11:00 - 12:00 D. Prasad (Mehta Research Institute, Allahabad, India)
On a conjecture of Jacquet about distinguished representations of $GL(n)$.
- 14:00 - 15:00 D. Blasius (University of California, Los Angeles, U.S.A.)
Hilbert Modular Forms, Elliptic Curves and Hodge Conjecture.
- 15:30 - 16:30 R. Hill (University College London, U.K.)
Metaplectic extensions of $GL(n)$ and the Gauss-Schering Lemma.

Tuesday, 15 August

- 9:30 - 10:30 F. Shahidi (Purdue University, West Lafayette, U.S.A.)
New cases of Langlands functoriality.
- 11:00 - 12:00 M. Rapoport (Universität zu Köln, Germany)
Flag varieties of loop groups and local models of Shimura varieties.
- 14:00 - 15:00 J. Bernstein (Tel Aviv University, Israel)
A remark on local trace formula for p -adic reductive groups.
- 15:15 - 16:15 R. Miatello (Universidad Nacional de Córdoba, Argentina)
Density results for automorphic forms on the Hilbert modular group.
- 16:30 - 17:30 J.K. Mahnkopf (Universität Heidelberg, Germany)
Cohomology of arithmetic groups and values of automorphic L -functions on $GL(n)$.

Wednesday, 16 August

- 9:30 - 10:30 R. Livne (Hebrew University, Jerusalem, Israel)
Cubic exponential sums and metaplectic forms.
- 11:00 - 12:00 M.F. Vigneras (Université de Paris VII, France)
Local Langlands correspondence modulo l .
- 14:00 - 15:00 R. Tandon (University of Hyderabad, India)
A criterion for base change in terms of epsilon factors.
- 15:30 - 16:30 J.P. Funke (Max-Planck-Institut für Mathematik, Bonn, Germany)
Cycles in hyperbolic space and Siegel modular forms.

Thursday, 17 August

- 9:30 - 10:30 G. Savin (University of Utah, Salt Lake City, U.S.A.)
Fourier coefficients for G_2 .
- 11:00 - 12:00 D. Ramakrishnan (Caltech, Pasadena, U.S.A.)
The strong Artin conjecture for solvable Galois representations of $GO(4)$ -type.
- 14:00 - 15:00 T. Wedhorn (Universität zu Köln, Germany)
A stratification of Shimura varieties.
- 15:30 - 16:30 R. Schmidt (Universität des Saarlandes, Saarbrücken, Germany)
Siegel Modular Forms and Representations.

Friday, 18 August

- 9:30 - 10:30 T.N Venkataramana (T.I.F.R., Mumbai, India)
Cycles on compact locally symmetric varieties.
- 11:00 - 12:00 G. Harder (Universität Bonn, Germany)
Mixed motives in Shimura varieties.

SCHOOL ON AUTOMORPHIC FORMS

ON $GL(n)$

(31 July - 18 August 2000)

LECTURE NOTES

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|-----------|---|
| SMR1233/1 | The local Langlands correspondence for $GL(n)$ over p-adic fields.
T. Wedhorn |
| SMR1233/2 | Notes on L-functions for $GL(n)$.
J.W. Cogdell |
| SMR1233/3 | Minkowski reduction.
M.S. Raghunathan |
| SMR1233/4 | Classical Modular Forms.
T.N. Venkataramana |
| SMR1233/5 | Representation theory of $GL(n)$ over non-Archimedean local fields.
D. Prasad |
| SMR1233/6 | The Langlands Program (An overview).
G. Harder |
| SMR1233/7 | Modularity of solvable Artin representations of $GO(4)$-type.
D. Ramakrishnan |

