

## CONTENTS

PREFACE .....	v
LECTURE COURSE	
Automorphic representations and number theory JAMES ARTHUR.....	3
REPRESENTATION THEORY OF SEMI-SIMPLE LIE GROUPS	
Embedding limits of discrete series of semi-simple Lie groups BRIAN E. BLANK.....	55
The $C^\infty$ Chevalley's theorem JIRI DADOK.....	65
L-packets for $SL_n$ S. S. GELBART.....	69
On harmonic functions of symmetric spaces and buildings PAUL GERARDIN.....	79
Discrete series character identities and Fourier inversion REBECCA A. HERB.....	93
$L^2$ -cohomology and Lie algebra cohomology JONATHAN ROSENBERG.....	99
R-groups and orbits W. ROSSMAN.....	113
On non-vanishing of L-functions for $GL(n)$ F. SHAHIDI.....	117
DIFFERENTIAL AND PSEUDO-DIFFERENTIAL OPERATORS	
Horospherical functions on symmetric spaces ROE GOODMAN.....	125
$L^2$ -boundedness of pseudo-differential operators with non-regular symbols TOSINOBU MURAMATU and MICHIHIRO NAGASE.....	135
Conjugates connected with the generalized axially symmetric potential equation P. G. ROONEY.....	145
An elementary proof of the theorem of Fatou-Naim-Doob J. C. TAYLOR.....	153
Szegő's theorem and pseudo-differential operators HAROLD WIDOM.....	165

## HARMONIC ANALYSIS

Some good and bad characters I have known and where they led J. ACZÉL.....	177
Multilinear Grothendieck inequalities via the Schur algorithm JOHN J. F. FOURNIER.....	189
Burnside type theorems for Banach representations of motion groups and algebras DAVID GURARIE.....	213
Interpolation of quasi-normed spaces involving weights HANS P. HEINIG.....	245
Entire functions of exponential type as multipliers for weight functions PAUL KOOSIS.....	269
A function which does not operate MICHAEL A. RAINS.....	279
Weighted norm inequalities for fractional maximal operators ERIC T. SAWYER.....	283
APPENDIX: Index of speakers and titles.....	311