

Contents

0	Foreword	1
1	Introduction	3
1	Automorphic Distributions and the Weyl Calculus	
2	The Weyl calculus, the upper half-plane, and automorphic distributions	11
3	Eisenstein distributions, Dirac's comb and Bezaout's distribution	18
4	The structure of automorphic distributions	28
5	The main formula: a heuristic approach	40
2	A Higher-level Weyl Calculus of Operators	
6	A tamer version of the Weyl calculus: the horocyclic calculus	53
7	The higher-level metaplectic representations	59
8	The radial parts of relativistic wave operators	74
9	The higher-level Weyl calculi	82
10	Can one compose two automorphic operators?	95
11	The sharp product of two power-functions: the Weyl case	106
12	Beyond the symplectic group	118
3	The Sharp Composition of Automorphic Distributions	
13	The Roelcke-Selberg expansion of functions associated with $\mathfrak{E}_{\nu_1}^\sharp \# \mathfrak{E}_{\nu_2}^\sharp$: the continuous part	131
14	The Roelcke-Selberg expansion of functions associated with $\mathfrak{E}_{\nu_1}^\sharp \# \mathfrak{E}_{\nu_2}^\sharp$: the discrete part	151
15	A proof of the main formula	163
16	Towards the completion of the multiplication table	171
4	Further Perspectives	
17	Another way to compose Weyl symbols	195
18	Odd automorphic distributions and modular forms of non-zero weight	217
19	New perspectives and problems in quantization theory	228
	Index of Notation	239
	Subject Index	241
	Bibliography	243