
References

1. S. T. Ali, J-P. Antoine and J-P. Gazeau: *Coherent States, Wavelets and Their Generalizations*. Springer-Verlag, New York, 2000.
2. S.T. Ali, N.M. Atakishiyev, S.M. Chumakov and K.B. Wolf, *The Wigner function for general Lie groups and the wavelet transform*, Ann. H. Poincaré **1** (2000), 685-714.
3. S.T.Ali, A.E. Krasowska and R. Murenzi, *Wigner functions from the two-dimensional wavelets group*, J. Opt. Soc. Am. **A17** (2000), 1-11.
4. S.T. Ali, H. Führ and A. Krasowska, *Plancherel inversion as unified approach to wavelet transforms and Wigner functions*, Ann. Henri Poincaré **4** (2003), 1015-1050.
5. W.O. Amrein and A.M. Berthier, *On support properties of L^p -functions and their Fourier transforms*, J. Funct. Anal. **24** (1977), 258-267.
6. N. H. Anh, *Classification of connected unimodular Lie groups with discrete series*, Ann. Inst. Fourier **30** (1980), 159-192.
7. P. Aniello, G. Cassinelli, E. De Vito and A. Levrero, *Wavelet transforms and discrete frames associated to semidirect products*, J. Math. Phys. **39** (1998), 3965-3973.
8. P. Aniello, G. Cassinelli, E. De Vito and A. Levrero, *Square-integrability of induced representations of semidirect products*, Rev. Math. Phys. **10** (1998), 301-313.
9. J.-P. Antoine and A.L. Hohouéto, *Discrete frames of Poincaré coherent states in 1+3 dimension*, J. Fourier Anal. and Appl. **9** (2003), 141-173.
10. D. Arnal and J.C. Cortet, *Nilpotent Fourier transform and applications*, Lett. Math. Phys. **9** (1985), 25-34.
11. D. Arnal, M. Cahen and J. Ludwig, *Lie groups whose coadjoint orbits are of dimension smaller or equal to two*, Lett. Math. Phys. **33** (1995), 183-186.
12. D. Arnal, J.C. Cortet and J. Ludwig, *Moyal product and representations of solvable Lie groups*, J. Funct. Anal. **133** (1995), 402-424.
13. D. Arnal and S. Gutt, *Décomposition de $L^2(G)$ et transformation de Fourier adaptée pour un groupe G nilpotent*, C.R. Acad. Sci. Paris, **t. 306**, Série I (1988), 25-28.
14. D. Arnal and J. Ludwig, *$Q.U.P.$ and Paley-Wiener property of unimodular, especially nilpotent, Lie groups*, Proc. Am. Math. Soc. **125**, (1997), 1071-1080.
15. W. Arveson: *An Invitation to C^* -Algebras*. Springer Verlag, New York, 1976.

16. E.W. Aslaksen and J.R. Klauder, *Continuous representation theory using the affine group*, J. Math. Phys. **10**, 2267-2275 (1969).
17. L. Auslander and C.C. Moore: *Unitary representations of solvable Lie groups*. Mem. Am. Math. Soc. **62**, 1966.
18. L. Baggett, *Processing a radar signal and representations of the discrete Heisenberg group*, Colloq. Math., **LX/LXI** (1), 1990, pp.195-203.
19. L.W. Baggett, *An abstract interpretation of the wavelet dimension function using group representations*, J. Funct. Anal. **173** (2000) 1-20.
20. L.W. Baggett, and K.D. Merrill, *Abstract harmonic analysis and wavelets in \mathbb{R}^n* , in L. W. Baggett (ed.) et al., *The functional and harmonic analysis of wavelets and frames. Proceedings of the AMS special session, San Antonio, TX, USA, January 13-14, 1999*. Providence, RI: American Mathematical Society. Contemp. Math. **247** (1999) 17-27.
21. R. Balan, *Density and redundancy of the noncoherent Weyl-Heisenberg superframes*, Cont. Mathematics **247** (1999), 29-41.
22. D. Bernier and K. Taylor, *Wavelets from square-integrable representations*, SIAM J. Math. Anal. **27** (1996), 594-608.
23. P. Bernat, N. Conze, M. Duflo, M. Lévy-Nahas, M. Raïs, P. Renouard and M. Vergne: *Représentations des Groupes de Lie Résolubles*. Dunod, Paris, 1972.
24. J. Bertrand, and P. Bertrand, *Symbolic calculus on the time-frequency half-plane*, J. Math. Phys. **39** (1998), 4071-4090.
25. G. Bohnke, *Treillis d'ondelettes aux groupes de Lorentz*, Annales de l'Institut Henri Poincaré **54** (1991), 245-259.
26. F. Bruhat, *Distributions sur un groupe localement compact et applications à l'étude des représentations des groupes p -adiques*, Bull. Soc. math. France **89** (89), 43-75.
27. A.P. Calderón, *Intermediate spaces and interpolation, the complex method*, Studia Math. **24** (1964), 113-190.
28. O. Christensen: *Introduction to Frames and Riesz Bases*. Birkhäuser Boston, 2003.
29. A.L. Carey, *Group representations in reproducing kernel Hilberts spaces*, Reports in Math. Phys. **14** (1978), 247-259
30. L. Corwin and F.P. Greenleaf: *Representations of Nilpotent Lie Groups and Their Applications*. Cambridge University Press, Cambridge, 1989.
31. M. Cowling, *The Plancherel for a group not of type I*, Boll. Unione Mat. Ital., V. Ser., **A 15** (1978), 616-623.
32. B.N. Currey, *An explicit Plancherel formula for completely solvable Lie groups*, Mich. Math. J. **38** (1991), 75-87.
33. I. Daubechies, *The wavelet transform, time-frequency localization and signal analysis*, IEEE Trans. Inform. Theory **34** (1988), 961-1005.
34. J. Dixmier, *L'application exponentielle dans les groupes de Lie résolubles*, Bull. Soc. Math. Fr. **85** (1957), 113-121.
35. J. Dixmier: *C^* -Algebras*. North Holland, Amsterdam, 1977.
36. J. Dixmier: *Von Neumann-Algebras*. North Holland, Amsterdam, 1981.
37. A.H. Dooley, *A nonabelian version of the Shannon sampling theorem*, SIAM J. Math. Anal. **20** (1989), 624-633.
38. M. Duflo and C.C. Moore, *On the regular representation of a nonunimodular locally compact group*, J. Funct. Anal. **21** (1976), 209-243.
39. M. Duflo and M. Raïs, *Sur l'analyse harmonique sur les groupes de Lie résolubles*, Ann. Sci. Ecole Norm. Sup. **9** (1976), 107-144.

40. E.G. Effros, *Global structure in von Neumann algebras*, Trans. Am. Math. Soc. **121** (1966), 434-454.
41. P. Eymard, *L'algèbre de Fourier d'un groupe localement compact*, Bull. Soc. Math. Fr. **92** (1964), 181-236.
42. P. Eymard and M. Terp, *La transformation de Fourier et son inverse sur le groupe des $ax+b$ d'un corps local*, in *Analyse harmonique sur les groupes de Lie II, Semin. Nancy-Strasbourg 1976-78*, Lect. Notes Math. **739** (1979), 207-248.
43. H.G. Feichtinger and K.-H. Gröchenig, *A unified approach to atomic decompositions through integrable group representations*, 52-73 in *Function spaces and applications*, Hrsg. M. Cwikel et al., Lecture Notes in Mathematics 1302, Springer, Berlin, 1988.
44. J.M.G. Fell, *A Hausdorff topology for the closed subsets of a locally compact non-Hausdorff space*, Proc. Am. Math. Soc. **13** (1962), 472-476.
45. G.B. Folland: *A Course in Abstract Harmonic Analysis*. CRC Press, Boca Raton, 1995.
46. G.B. Folland: *Harmonic Analysis in Phase Space*. Princeton University Press, Princeton, 1989.
47. G.B. Folland and E.M. Stein: *Hardy Spaces on Homogeneous Groups*. Princeton University Press (Princeton), 1982.
48. H. Führ, *Wavelet frames and admissibility in higher dimensions*, J. Math. Phys. **37** (1996), 6353-6366.
49. H. Führ, *Continuous wavelet transforms with abelian dilation groups*, J. Math. Phys. **39** (1998), 3974-3986.
50. H. Führ, *Zur Konstruktion von Wavelettransformationen in höheren Dimensionen*. Thesis, Munich University of Technology, 1998.
51. H. Führ, *Continuous wavelet transforms from semidirect products*, Rev. Cienc. Mat. **18** (2000), 179-190.
52. H. Führ and M. Mayer, *Continuous wavelet transforms from semidirect products: Cyclic representations and Plancherel measure*, J. Fourier Anal. Appl. **8** (2002), 375-398.
53. H. Führ, *Admissible vectors for the regular representation*, Proc. Am. Math. Soc. **130** (2002), 2959-2970.
54. H. Führ, *Plancherel transform criteria for Weyl-Heisenberg frames with integer oversampling*, Conference Proceedings Wavelets and their applications, Allied Publishers, Chennai, 2003, 141-150.
55. H. Führ, *Admissible vectors and traces of the commuting algebra*, in JP Gazeau, R Kerner, JP Antoine, S Metens and JY Thibon (eds.) *Group 24: Physical and Mathematical Aspects of Symmetries*, Institute of Physics Conference Series 173 (2003), 867-874.
56. J.G. Glimm, *Locally compact transformation groups*, Trans. Am. Math. Soc. **101** (1961), 124-138.
57. R. Godement, *Les fonctions de type positif et la théorie des groupes*, Trans. Am. Math. Soc. **63** (1948), 1-84.
58. K. Gröchenig: *Foundations of Time-Frequency Analysis*. Birkhäuser, Boston, 2001.
59. K. Gröchenig, E. Kaniuth and K.F. Taylor, *Compact open sets in duals and projections in L^1 -algebras of certain semi-direct product groups*, Math. Proc. Camb. Phil. Soc. **111** (1992), 545-556.

60. A. Grossmann, J. Morlet and T. Paul, *Transforms associated to square integrable group representations I: General Results*, J. Math. Phys. **26** (1985), 2473-2479.
61. A. Guichardet, *Sur la décomposition des représentations des C^* -algèbres*, C. R. Acad. Sci. Paris **258** (1964), 768-770.
62. V. Guillemin and S. Sternberg: *Symplectic Techniques in Physics*. Cambridge University Press, Cambridge, (1990).
63. Harish-Chandra, *Representations of semi-simple Lie groups III*, Trans. AMS, **75** (1953), 185-243.
64. E. Hewitt and K.A. Ross: *Abstract Harmonic Analysis I*. Springer Verlag, Berlin, 1963.
65. J.R. Higgins and R.L. Stens (eds.): *Sampling Theory in Fourier and Signal Analysis. Advanced Topics*. Oxford University Press, Oxford, 1999.
66. R. Howe and E.C. Tan: *Non-Abelian Harmonic Analysis. Applications of $SL(2, \mathbb{R})$* . Springer Verlag, New York, 1992.
67. C.J. Isham and J.R. Klauder, *Coherent states for n -dimensional Euclidean groups $E(n)$ and their application*, J. Math. Phys. **32** (1991), 607-620.
68. Q. Jiang, *Wavelet transform and orthogonal decomposition of L^2 space on the Cartan domain $BDI(q=2)$* , Trans. Am. Math. Soc. **349** (1997), 2049-2068.
69. T. Kajiwara, *Group extensions and Plancherel formulas*, J. Math. Soc. Japan, **35** (1983), 93-115.
70. E. Kaniuth, *Der Typ der regulären Darstellung diskreter Gruppen*, Math. Ann. **182** (1969), 334-339.
71. I. Khalil, *Sur l'analyse harmonique du groupe affine de la droite*, Stud. Math. **51** (1974), 139-167.
72. A. A. Kirillov, *Merits and demerits of the orbit method*, Bull. Am. Math. Soc. (New Ser.) **36** (1999), 433-488.
73. J.R. Klauder and B.S. Skagerstam, eds.: *Coherent States - Applications in Physics and Mathematical Physics*, World Scientific, Singapore, 1985.
74. J.R. Klauder and R.F. Streater, *A wavelet transform for the Poincaré group*, J. Math. Phys. **32** (1991), 1609-1611.
75. A. Kleppner and R.L. Lipsman, *The Plancherel formula for group extensions, I and II*, Ann.Sci.Ecole Norm.Sup. **5** (1972), 459-516; *ibid.* **6** (1973), 103-132.
76. I. Kluvánek, *Sampling theorem in abstract harmonic analysis*, Mat.-Fyz. Casopis Sloven.Akad. Vied. **15** (1965), 43-48.
77. R.S. Laugesen, N. Weaver, G. Weiss and E.N. Wilson, *Continuous wavelets associated with a general class of admissible groups and their characterization*, J. Geom. Anal. **12** (2002), 89-102.
78. Lemarié, P.G., *Base d'ondelettes sur les groupes de Lie stratifiés*, Bull. Soc. Math. Fr, **117** (1989), 211-232.
79. H. Leptin and J. Ludwig: *Unitary representation theory of exponential Lie groups*. de Gruyter, Berlin, 1994.
80. L.-H. Lim, J.A. Packer and K. F. Taylor, *A direct integral decomposition of the wavelet representation*, Proc. Am. Math. Soc. **129** (2001) 3057-3067.
81. R.L. Lipsman, *Non-abelian Fourier analysis*, Bull. Sci. Math. **98** (1974), 209-233.
82. R.L. Lipsman: *Group Representations*. Lecture Notes in Mathematics **388**, Springer Verlag Berlin, 1974.
83. Liu, H. and Peng, L., *Admissible wavelets associated with the Heisenberg group*, Pac. J. Math. **180** (1997), 101-123.

84. V. Losert and H. Rindler, *Cyclic vectors for $L^p(G)$* , Pac. J. Math. **89** (1980), 143-145.
85. J. Ludwig, *On the Hilbert-Schmidt Semi-Norms of L^1 of a nilpotent Lie group*, Math. Ann. **273** (1986) 383-395.
86. G. W. Mackey, *Induced representations of locally compact groups, I*, Ann. of Math. **55** (1952), 101-139.
87. G. W. Mackey, *Induced representations of locally compact groups, II*, Ann. of Math. **58** (1953), 193-221.
88. G. W. Mackey, *Borel structure in groups and their duals*, Trans. Am. Math. Soc. **85** (1957), 134-165.
89. G. W. Mackey, *Induced representations and normal subgroups*, Proc. Internat. Sympos. Linear Spaces Jerusalem, 319-326, Pergamon Oxford 1960.
90. G. W. Mackey: *Induced Representations of Groups and Quantum Mechanics*. W. A. Benjamin Inc., New York, 1968.
91. G. W. Mackey: *The Theory of Unitary Group Representations*. University of Chicago Press, Chicago, 1976.
92. S. Mallat and S. Zhong, *Wavelet transform maxima and multiscale edges*, in Wavelets and Their Applications, M.B. Ruskai, G. Beylkin, R. Coifman, I. Daubechies, S. Mallat, Y. Meyer, and L. Raphael, eds., Jones and Bartlett, Boston, 1992, 67-104.
93. R. Murenzi, *Ondelettes multidimensionnelles et application à l'analyse d'images*. Thèse, Université Catholique de Louvain, Louvain-La-Neuve, 1990.
94. O.A. Nielsen: *Direct Integral Theory*. Marcel Dekker Inc., New York, 1980.
95. K.R. Parthasarathy: *An Introduction to Quantum Statistical Calculus*. Birkhäuser, Boston, 1992.
96. N.V. Pedersen, *Matrix coefficients and a Weyl correspondence for nilpotent Lie groups*, Invent. Math. **118** (1994), 1-36.
97. A. Perelomov: *Generalized Coherent States and Their Applications*. Springer Verlag Berlin, 1986.
98. I. Pesenson, *Sampling of Paley-Wiener functions on stratified groups*, J. Fourier Anal. Appl. **4** (1998), 271-281.
99. I. Pesenson, *A sampling theorem on homogeneous manifolds*, Trans. Am. Math. Soc. **352** (2000), 4257-4269.
100. I. Pesenson, *Sampling of band-limited vectors*, J. Fourier Anal. Appl. **4** (2001), 93-100.
101. M. Reed and B. Simon: *Methods of Modern Mathematical Physics I: Functional Analysis*. Academic Press, San Diego, 1980.
102. M. Rieffel, *Square integrable representations of Hilbert algebras*, J. Funct. Anal. **3** (1969), 265-300.
103. J. Rosenberg, *Square-integrable factor representations of locally compact groups*, Trans. Am. Math. Soc. **261** (1978), pp. 1-33.
104. W. Rudin: *Real and Complex Analysis*. McGraw-Hill, New York, 1966.
105. S. Sakai: *C^* -Algebras and W^* -Algebras*. Springer Verlag, Berlin, 1971.
106. I.E. Segal, *An extension of Plancherel's formula to separable unimodular groups*, Ann. Math. **52**, (1950), 272-292.
107. C.E. Sutherland, *Type analysis of the regular representation of a non-unimodular group*, Pac. J. Mathematics **79** (1978), 225-250.
108. C.E. Sutherland, *Cartan subalgebras, transverse measures and non-type-I Plancherel formulae*, J. Funct. Anal. **60** (1985), 281-308.

109. M. Takesaki, *A generalized commutation relation for the regular representation*, Bull. Soc. Math. France **97**, (1969), 289-298.
110. N. Tatsuuma, *Plancherel formula for non-unimodular locally compact groups*, J. Math. Kyoto Univ. **12** (1972), 179-261.
111. E. Thoma, *Eine Charakterisierung diskreter Gruppen vom Typ I*, Invent. Math. **6** (1968), 190-196.
112. V.S. Varadarajan: *An Introduction to Harmonic Analysis on Semisimple Lie Groups*. Cambridge University Press, Cambridge, 1989.
113. G. Weiss and E.N. Wilson, *The mathematical theory of wavelets*. 329-366 in Proceedings of the NATO-ASI meeting "Harmonic Analysis 2000 – A Celebration.", Kluwer, 2001.
114. E.P. Wigner, *On the quantum correction for thermodynamic equilibrium*, Phys. Rev. **40** (1932), 749-759.
115. E. Wilczok, *New uncertainty principles for the continuous Gabor transform and the continuous wavelet transform*, Doc. Math. **5** (2000), 203-226.
116. P. Wojdyło: *Gabor and Wavelet Frames. Geometry and Applications*. Thesis, Warsaw University, 2000.
117. K. Yosida: *Functional Analysis*. Sixth Edition Springer, Grundlehren der mathematischen Wissenschaften **123**, 1980.
118. R. J. Zimmer: *Ergodic theory and semisimple groups*. Birkhäuser, Boston, 1984.