

Bibliography

- [1] M. v. S. Birman and M. Z. Solomjak. Estimates for the singular numbers of integral operators. *Uspehi Mat. Nauk*, 32(1(193)):17–84, 271, 1977.
- [2] I. Chavel. *Riemannian geometry*, volume 98 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, second edition, 2006. A modern introduction.
- [3] J. B. Conway. *A course in operator theory*, volume 21 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2000.
- [4] A. Dasgupta, S. Kumar Nayak, and M. W. Wong. Hilbert-Schmidt and trace class pseudo-differential operators and Weyl transforms on the affine group. *J. Pseudo-Differ. Oper. Appl.*, 12(1):Paper No. 11, 19, 2021.
- [5] A. Dasgupta and S. K. Nayak. Pseudo-differential operators, Wigner transform and Weyl transform on the affine Poincaré group. *Bull. Sci. Math.*, 184:Paper No. 103255, 23, 2023.
- [6] J. Delgado and M. Ruzhansky. Schatten classes on compact manifolds: kernel conditions. *J. Funct. Anal.*, 267(3):772–798, 2014.
- [7] J. Delgado and M. Ruzhansky. Schatten–von Neumann classes of integral operators. *J. Math. Pures Appl. (9)*, 154:1–29, 2021.

-
- [8] G. A. Edgar and J. M. Rosenblatt. Difference equations over locally compact abelian groups. *Trans. Amer. Math. Soc.*, 253:273–289, 1979.
- [9] G. B. Folland. *Harmonic analysis in phase space*, volume 122 of *Annals of Mathematics Studies*. Princeton University Press, Princeton, NJ, 1989.
- [10] G. B. Folland. *A course in abstract harmonic analysis*. Studies in Advanced Mathematics. CRC Press, Boca Raton, FL, 1995.
- [11] G. B. Folland. *Introduction to partial differential equations*. Princeton University Press, Princeton, NJ, second edition, 1995.
- [12] G. B. Folland. *Real analysis*. Pure and Applied Mathematics (New York). John Wiley & Sons, Inc., New York, second edition, 1999. Modern techniques and their applications, A Wiley-Interscience Publication.
- [13] J. Fourier. *Théorie analytique de la chaleur*. Éditions Jacques Gabay, Paris, 1988. Reprint of the 1822 original.
- [14] W. Fulton and J. Harris. *Representation theory*, volume 129 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1991. A first course, Readings in Mathematics.
- [15] D. Geller. Fourier analysis on the Heisenberg group. *Proc. Nat. Acad. Sci. U.S.A.*, 74(4):1328–1331, 1977.
- [16] D. Geller. Fourier analysis on the Heisenberg group. I. Schwartz space. *J. Functional Analysis*, 36(2):205–254, 1980.
- [17] D. Geller. Spherical harmonics, the Weyl transform and the Fourier transform on the Heisenberg group. *Canad. J. Math.*, 36(4):615–684, 1984.

-
- [18] V. Guillemin and A. Pollack. *Differential topology*. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1974.
- [19] B. Hall. *Lie groups, Lie algebras, and representations*, volume 222 of *Graduate Texts in Mathematics*. Springer, Cham, second edition, 2015. An elementary introduction.
- [20] M. A. Hennings. The Weyl transformation and quantisation for locally compact abelian groups. *Publ. Res. Inst. Math. Sci.*, 21(6):1223–1235, 1985.
- [21] C. S. Herz. Fourier transforms related to convex sets. *Ann. of Math. (2)*, 75:81–92, 1962.
- [22] E. Hewitt and K. A. Ross. *Abstract harmonic analysis. Vol. I*, volume 115 of *Grundlehren der Mathematischen Wissenschaften*. Springer-Verlag, Berlin-New York, second edition, 1979. Structure of topological groups, integration theory, group representations.
- [23] H. Hopf. *Differential geometry in the large*, volume 1000 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1983. Notes taken by Peter Lax and John Gray, With a preface by S. S. Chern.
- [24] L. Hörmander. *The analysis of linear partial differential operators. I*, volume 256 of *Grundlehren der mathematischen Wissenschaften [Fundamental Principles of Mathematical Sciences]*. Springer-Verlag, Berlin, second edition, 1990. Distribution theory and Fourier analysis.
- [25] R. Howe. On the role of the Heisenberg group in harmonic analysis. *Bull. Amer. Math. Soc. (N.S.)*, 3(2):821–843, 1980.
- [26] M. Keyl, J. Kiukas, and R. F. Werner. Schwartz operators. *Rev. Math. Phys.*, 28(3):1630001, 60, 2016.

-
- [27] E. Kreyszig. *Introductory functional analysis with applications*. John Wiley & Sons, New York-London-Sydney, 1978.
- [28] R. A. Kunze. L_p Fourier transforms on locally compact unimodular groups. *Trans. Amer. Math. Soc.*, 89:519–540, 1958.
- [29] F. Luef and H. J. Samuelsen. Fourier restriction for Schatten class operators and functions on phase space. *arXiv:2407.16259*, 2024.
- [30] J. M. Maillard. On the twisted convolution product and the Weyl transformation of tempered distributions. *J. Geom. Phys.*, 3(2):230–261, 1986.
- [31] M. Măntoiu and M. Ruzhansky. Pseudo-differential operators, Wigner transform and Weyl systems on type I locally compact groups. *Doc. Math.*, 22:1539–1592, 2017.
- [32] M. Mishra and M. K. Vemuri. The Weyl transform of a measure. *Proc. Indian Acad. Sci. Math. Sci.*, 133(2):Paper No. 29, 11, 2023.
- [33] M. Mishra and M. K. Vemuri. The Weyl transform of a compactly supported distribution. *arXiv:2409.16835*, 2024.
- [34] M. Mishra and M. K. Vemuri. The Weyl transform of a smooth measure on a real-analytic submanifold. *Bulletin of the Australian Mathematical Society*, pages 1–10, 2024.
- [35] C. Muscalu and W. Schlag. *Classical and multilinear harmonic analysis. Vol. I*, volume 137 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 2013.
- [36] L. Peng and J. Zhao. Weyl transforms on the upper half plane. *Rev. Mat. Complut.*, 23(1):77–95, 2010.

-
- [37] G. Pisier and Q. Xu. *Non-commutative L^p -spaces*. North-Holland, Amsterdam, 2003.
- [38] J. C. T. Pool. Mathematical aspects of the Weyl correspondence. *J. Mathematical Phys.*, 7:66–76, 1966.
- [39] R. Radha and N. Shraavan Kumar. Weyl transform and Weyl multipliers associated with locally compact abelian groups. *J. Pseudo-Differ. Oper. Appl.*, 9(2):229–245, 2018.
- [40] D. L. Ragozin. Rotation invariant measure algebras on Euclidean space. *Indiana Univ. Math. J.*, 23:1139–1154, 1973/74.
- [41] M. Reed and B. Simon. *Methods of modern mathematical physics. II. Fourier analysis, self-adjointness*. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1975.
- [42] H. Reiter and J. D. Stegeman. *Classical harmonic analysis and locally compact groups*, volume 22 of *London Mathematical Society Monographs. New Series*. The Clarendon Press, Oxford University Press, New York, second edition, 2000.
- [43] J. Rosenblatt. Linear independence of translations. *J. Austral. Math. Soc. Ser. A*, 59(1):131–133, 1995.
- [44] W. Rudin. *Functional analysis*. International Series in Pure and Applied Mathematics. McGraw-Hill, Inc., New York, second edition, 1991.
- [45] L. Schwartz. Théorie générale des fonctions moyenne-périodiques. *Ann. of Math. (2)*, 48:857–929, 1947.
- [46] I. E. Segal. Transforms for operators and symplectic automorphisms over a locally compact abelian group. *Math. Scand.*, 13:31–43, 1963.

-
- [47] B. Simon. The Weyl transform and L^p functions on phase space. *Proc. Amer. Math. Soc.*, 116(4):1045–1047, 1992.
- [48] B. Simon. *Operator theory*, volume 4 of *A Comprehensive Course in Analysis*. American Mathematical Society, Providence, RI, 2015.
- [49] E. M. Stein. *Harmonic analysis: real-variable methods, orthogonality, and oscillatory integrals*, volume 43 of *Princeton Mathematical Series*. Princeton University Press, Princeton, NJ, 1993. With the assistance of Timothy S. Murphy, *Monographs in Harmonic Analysis*, III.
- [50] E. M. Stein and R. Shakarchi. *Fourier analysis*, volume 1 of *Princeton Lectures in Analysis*. Princeton University Press, Princeton, NJ, 2003. An introduction.
- [51] E. M. Stein and G. Weiss. *Introduction to Fourier analysis on Euclidean spaces*, volume No. 32 of *Princeton Mathematical Series*. Princeton University Press, Princeton, NJ, 1971.
- [52] G. Szegő. *Orthogonal Polynomials*. American Mathematical Society Colloquium Publications, Vol. 23. American Mathematical Society, New York, 1939.
- [53] M. E. Taylor. *Noncommutative harmonic analysis*, volume 22 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1986.
- [54] S. Thangavelu. Spherical means on the Heisenberg group and a restriction theorem for the symplectic Fourier transform. *Rev. Mat. Iberoamericana*, 7(2):135–155, 1991.
- [55] S. Thangavelu. *Lectures on Hermite and Laguerre expansions*, volume 42 of *Mathematical Notes*. Princeton University Press, Princeton, NJ, 1993. With a preface by Robert S. Strichartz.

-
- [56] S. Thangavelu. On Paley-Wiener theorems for the Heisenberg group. *J. Funct. Anal.*, 115(1):24–44, 1993.
- [57] S. Thangavelu. *Harmonic analysis on the Heisenberg group*, volume 159 of *Progress in Mathematics*. Birkhäuser Boston, Inc., Boston, MA, 1998.
- [58] P. A. Tomas. A restriction theorem for the Fourier transform. *Bull. Amer. Math. Soc.*, 81:477–478, 1975.
- [59] M. K. Vemuri. *Realizations of the canonical representation*. ProQuest LLC, Ann Arbor, MI, 1997. Thesis (Ph.D.)—The University of Chicago.
- [60] M. K. Vemuri. Realizations of the canonical representation. *Proc. Indian Acad. Sci. Math. Sci.*, 118(1):115–131, 2008.
- [61] M. K. Vemuri. A non-commutative Sobolev estimate and its application to spectral synthesis. *Tamkang J. Math.*, 40(1):95–111, 2009.
- [62] M. K. Vemuri. Benedicks’ theorem for the Weyl transform. *J. Math. Anal. Appl.*, 452(1):209–217, 2017.
- [63] A. Weil. Sur certains groupes d’opérateurs unitaires. *Acta Math.*, 111:143–211, 1964.
- [64] R. Werner. Quantum harmonic analysis on phase space. *J. Math. Phys.*, 25(5):1404–1411, 1984.
- [65] H. Weyl. *The theory of groups and quantum mechanics*. Dover Publications, Inc., New York, german edition, 1950. Reprint of the 1931 English translation.
- [66] H. Whitney. *Complex analytic varieties*. Addison-Wesley Publishing Co., Reading, Mass.-London-Don Mills, Ont., 1972.
- [67] M. W. Wong. *Weyl transforms*. Universitext. Springer-Verlag, New York, 1998.

List of Publications

1. **Mansi Mishra** and M. K. Vemuri, “The Weyl transform of a measure”, *Proc. Indian Acad. Sci. (Math. Sci.)*, vol.133(2), Paper No. 29, 11, (2023). doi: [10.1007/s12044-023-00748-0](https://doi.org/10.1007/s12044-023-00748-0).
2. **Mansi Mishra** and M. K. Vemuri, “The Weyl Transform of a smooth measure on a real-analytic submanifold”, *Bull. Aust. Math. Soc.*, (2024). doi: [10.1017/S0004972724000881](https://doi.org/10.1017/S0004972724000881).
3. **Mansi Mishra** and M. K. Vemuri, “The Weyl Transform of a compactly supported distribution”, *arXiv preprint*, (2024). [arXiv2409.16835](https://arxiv.org/abs/2409.16835).
