

# Bibliography

- [ABG] Atiyah, M. F., Bott, R. and Gårding, L., *Lacunas for hyperbolic differential operators with constant coefficients, I*, Acta Math. **124** (1970), 109–189.
- [Bea82] Beals, R. M.,  *$L^p$  boundedness of Fourier integral operators*, Mem. Amer. Math. Soc. **38** (1982), no. 264.
- [BL76] Bergh, J. and Löfström, J., *Interpolation spaces. An introduction*, Springer-Verlag, Berlin, 1976, Grundlehren der Mathematischen Wissenschaften, No. 223.
- [Bre75] Brenner, P., *On  $L_p - L_{p'}$  estimates for the wave-equation*, Math. Z. **145** (1975), 251–254.
- [Bre77] Brenner, P.,  *$L_p - L_{p'}$ -estimates for Fourier integral operators related to hyperbolic equations*, Math. Z. **152** (1977), 273–286.
- [Dui96] Duistermaat, J. J., *Fourier integral operators*, Progress in Mathematics, vol. 130, Birkhäuser Boston Inc., Boston, MA, 1996.
- [ES92] Egorov, Y. V. and Shubin, M. A. (eds.), *Partial differential equations. I*, Encyclopaedia of Mathematical Sciences, vol. 30, Springer-Verlag, Berlin, 1992.
- [Ev98] Evans, L. C., *Partial differential equations*, Graduate Studies in Mathematics, 19. American Mathematical Society, Providence, RI, 1998.
- [GKZ94] Gelfand, I. M., Kapranov, M. M., and Zelevinsky, A. V., *Discriminants, resultants, and multidimensional determinants*, Mathematics: Theory & Applications, Birkhäuser Boston Inc., Boston, MA, 1994.

- [HR03] Hirosawa, F., Reissig, M., *From wave to Klein-Gordon type decay rates*, Nonlinear hyperbolic equations, spectral theory, and wavelet transformations, 95–155, Oper. Theory Adv. Appl., 145, Birkhäuser, Basel, 2003.
- [Hör83a] Hörmander L., *The analysis of linear partial differential operators. I*, Grundlehren der Mathematischen Wissenschaften, vol. 256, Springer-Verlag, Berlin, 1983.
- [Hör83b] Hörmander L., *The analysis of linear partial differential operators. II*, Grundlehren der Mathematischen Wissenschaften, vol. 257, Springer-Verlag, Berlin, 1983.
- [Hör97] Hörmander L., *Lectures on nonlinear hyperbolic differential equations*, Mathématiques & Applications (Berlin), vol. 26, Springer-Verlag, Berlin, 1997.
- [KR07] Kamotski, I. and Ruzhansky, M., *Regularity properties, representation of solutions and spectral asymptotics of systems with multiplicities*, Comm. Partial Differential Equations, **32** (2007), 1–35.
- [KT98] Keel, M. and Tao, T., *Endpoint Strichartz estimates*, Amer. J. Math. **120** (1998), 955–980.
- [Kli67] Klinger, A., *The Vandermonde matrix*, Amer. Math. Monthly **74** (1967), 571–574.
- [Lit73] Littman, W.,  *$L^p - L^q$ -estimates for singular integral operators arising from hyperbolic equations*, Partial differential equations (Proc. Sympos. Pure Math., Vol. XXIII, Univ. California, Berkeley, Calif., 1971), Amer. Math. Soc., Providence, R.I., 1973, pp. 479–481.
- [Mat77] Matsumura, A., *On the asymptotic behavior of solutions of semi-linear wave equations*, Publ. Res. Inst. Math. Sci., Kyoto Univ. **12** (1976/77), 169–189.
- [MR07] Matsuyama, T. and Ruzhansky, M., *Dispersion and asymptotic profiles for Kirchhoff equations*, Topics in contemporary differential geometry, complex analysis and mathematical physics. 234–243, World Sci. Publ., Hackensack, NJ, 2007.
- [MR09] Matsuyama, T. and Ruzhansky, M., *Asymptotic integration and dispersion for hyperbolic equations*, to appear in Adv. Diff. Equations.

- [MR09a] Matsuyama, T. and Ruzhansky, M., *Time decay for hyperbolic equations with homogeneous symbols*, C. R. Acad. Sci. Paris, Ser I. **347** (2009), 915–919.
- [Nis00] Nishitani, T., *Hyperbolic equations with double characteristics*, Istituti Editoriali e Poligrafici Internazionali, Università di Pisa, Dipartimento di Matematica, Italy, 2000.
- [Pec76] Pecher, H.,  *$L^p$ -Abschätzungen und klassische Lösungen für nichtlineare Wellengleichungen. I*, Math. Z. **150** (1976), 159–183.
- [Rac92] Racke, R., *Lectures on nonlinear evolution equations: Initial value problems*, Aspects of Mathematics, E19, Friedr. Vieweg & Sohn, Braunschweig, 1992.
- [Rad03] Radkevich, E. V., *On the global stability of solutions of moment systems in nonequilibrium thermodynamics*, Math. Notes **73** (2003), 551–561.
- [Rad05] Radkevich, E. V., *Asymptotic stability of solutions of the Cauchy problem for models of nonequilibrium thermodynamics. Stable hyperbolic pencils*, (Russian) // Sovrem. Mat. Prilozh. No. 12, Differ. Uravn. Chast. Proizvod. (2004), 138–173; translation in J. Math. Sci. (N. Y.) **130** (2005), 5046–5082.
- [Ran69] Randol, B., *On the asymptotic behavior of the Fourier transform of the indicator function of a convex set*, Trans. Amer. Math. Soc. **139** (1969), 279–285.
- [ReS05] Reissig, M. and Smith, J.,  *$L^p$ - $L^q$  estimate for wave equation with bounded time dependent coefficient*, Hokkaido Math. J. **34** (2005), 541–586.
- [RY99] Reissig, M. and Yagdjian, K., *One application of Floquet's theory to  $L_p$ - $L_q$  estimates for hyperbolic equations with very fast oscillations*, Math. Methods Appl. Sci. **22** (1999), 937–951.
- [RY00] Reissig, M. and Yagdjian, K.,  *$L_p$ - $L_q$  decay estimates for the solutions of strictly hyperbolic equations of second order with increasing in time coefficients*, Math. Nachr. **214** (2000), 71–104.
- [Ruzh00] Ruzhansky, M. V., *Singularities of affine fibrations in the regularity theory of Fourier integral operators*, Russian Math. Surveys **55** (2000), 99–170.

- [Ruzh01] Ruzhansky, M. *Regularity theory of Fourier integral operators with complex phases and singularities of affine fibrations*, CWI Tracts, volume 131, 2001.
- [Ruzh06] Ruzhansky, M., *On some properties of Galerkin approximations of solutions to Fokker–Planck equations*, in Proceedings of the 4th International Conference “Analytical Methods in Analysis and Differential Equations (AMADE-2006), Vol.3, Differential Equations, Minsk: Institute of Mathematics of NAS of Belarus, 133–139, 2006.
- [Ruzh07] Ruzhansky, M., *Pointwise van der Corput lemma for functions of several variables*, Functional Analysis and its Applications **43** (2009), 75–77.
- [RS05] Ruzhansky, M. and Smith, J., *Global time estimates for higher order hyperbolic equations*, Journees “Equations aux Derivees Partielles”, Exp. No. XII, 29 pp., Ecole Polytech., Palaiseau, 2005.
- [Sog93] Sogge, C. D., *Fourier integrals in classical analysis*, Cambridge Tracts in Mathematics, vol. 105, Cambridge University Press, Cambridge, 1993.
- [Ste93] Stein, E. M., *Harmonic analysis: real-variable methods, orthogonality, and oscillatory integrals*, Princeton Mathematical Series, vol. 43, Princeton University Press, Princeton, NJ, 1993.
- [Str70a] Strichartz, R. S., *Convolutions with kernels having singularities on a sphere*, Trans. Amer. Math. Soc. **148** (1970), 461–471.
- [Str70b] Strichartz, R. S., *A priori estimates for the wave equation and some applications*, J. Funct. Analysis **5** (1970), 218–235.
- [Sug94] Sugimoto, M., *A priori estimates for higher order hyperbolic equations*, Math. Z. **215** (1994), 519–531.
- [Sug96] Sugimoto, M., *Estimates for hyperbolic equations with non-convex characteristics*, Math. Z. **222** (1996), 521–531.
- [Sug98] Sugimoto, M., *Estimates for hyperbolic equations of space dimension 3*, J. Funct. Anal. **160** (1998), 382–407.
- [Trè80] Trèves, F., *Introduction to pseudodifferential and Fourier integral operators. Vol. 2: Fourier integral operators*, Plenum Press, New York, 1980.

- [VR03] Volevich, L. R. and Radkevich, E. V., *Uniform estimates of solutions of the Cauchy problem for hyperbolic equations with a small parameter multiplying higher derivatives*, Diff. Eq. **39** (2003), 521–535.
- [VR04] Volevich, L. R. and Radkevich, E. V., *Stable pencils of hyperbolic polynomials and the Cauchy problem for hyperbolic equations with a small parameter at the highest derivatives*, Trans. Moscow Math. Soc. **65** (2004), 63–104.
- [vW71] Von Wahl, W.,  *$L^p$ -decay rates for homogeneous wave-equations*, Math. Z. **120** (1971), 93–106.
- [ZR04] Zakharchenko, P. A. and Radkevich, E. V., *On the properties of the representation of the Fokker–Planck equation in the basis of Hermite functions*. (Russian) // Dokl. Akad. Nauk 395 (2004), no. 1, 36–39; translation in Dokl. Phys. 49 (2004), no. 3, 139–142.