WILHELM SCHLAG

BIBLIOGRAPHY

1. "A note on complex Tauberian theorems," *Mitt. Math. Sem. Giessen* **200**, 13–14 (1991).

2. "Schauder and L^p estimates for parabolic systems via Campanato spaces," *Comm. PDE* **21**, no. 7 and 8, 1141–1175 (1994).

3. "A generalization of Bourgain's circular maximal theorem," *J. Amer. Math. Soc.* **10**, no. 1, 103–122 (1997).

4. "L^p to L^q estimates for the circular maximal function", Ph.D. Thesis, California Institute of Technology, (1996). Has also appeared as part of a book: "Topics in Analysis and Applications, Selected Theses," World Scientific Press, 2000.

5. (with C. Sogge) "Local smoothing estimates related to the circular maximal theorem," *Math. Res. Letters* **4** (1997), 1–15, (1996).

6. "A geometric proof of the circular maximal theorem," *Duke Math. J.* **93**, no. 3, 505–533 (1998).

7. (with S. Konyagin) "Lower bounds of the absolute value of random polynomials on a neighborhood of the unit circle," *Trans. Amer. Math. Soc.* **351**, no. 12, 4963–4980 (1999).

8. "A geometric inequality with applications to the Kakeya problem in three dimensions," *Geom. Funct. Anal.* **8**, no. 3, 606–625 (1998).

9. (with Y. Peres) "Smoothness of projections, Bernoulli convolutions, and dimensions of exceptions," *Duke Math. J.* **102**, no. 2, 193–251 (2000).

10. (with S.V. Konyagin and I. Ruzsa) "On uniformly distribution dilates of finite integer sequences," *J. Number Theory* **82**, no. 2, 165–187 (2000)

11. (with Y. Peres and B. Solomyak) "Sixty years of Bernoulli convolutions," in *Fractals and Stochastics, II, Proceedings of the Greifswald 1998 Conference*," (ed. Bandt, Graf, and Zähle), 1999.

12. "On minima of the absolute value of certain random exponential sums," *Amer. J. Math.* **122**, 483–514 (2000).

13. (with M. Goldstein) "Hölder continuity of the integrated density of states for quasiperiodic Schrödinger equations and averages of shifts of subharmonic functions," *Annals of Math. (2)* **154**, 155–203 (2001).

14. (with J. Bourgain) "Anderson localization for Schrödinger operators on $\mathbb{Z}$ with strongly mixing potentials," *Comm. Math. Phys.* **215**, 143–175 (2000).

15. (with J. Bourgain and M. Goldstein) "Anderson localization for Schrödinger operators on $\mathbb{Z}$ with potentials given by the skew-shift," *Comm. Math. Phys.* **220**, 583–621 (2001).

16. (with J. Bourgain and M. Goldstein) "Anderson localization for Schrödinger operators on $\mathbb{Z}^2$ with quasi-periodic potentials," *Acta Math.* **188**, no. 1, 41–86 (2002).

17. (with E. Lindenstrauss and Y. Peres) "Bernoulli convolutions and an intermediate value theorem for entropies of K-partitions," *J. Anal. Math.* **87** (Wolff memorial issue), 337–367 (2002).

18. (with C. Shubin and T. Wolff) "Frequency concentration and localization lengths for the Anderson model at small disorders," *J. Anal. Math.* **88** (Wolff memorial issue), 173–220 (2002).

19. "On the integrated density of states for Schrödinger operators on $\mathbb{Z}^2$ with quasi periodic potentials," *Comm. Math. Phys.* **223**, 47–65 (2001).

20. (with I. Rodnianski and A. Soffer) "Asymptotic stability of N-soliton states of NLS," preprint 2002.

21. (with I. Rodnianski) "Classical and quantum scattering for a class of random long-range potentials," *Int. Math Res. Notices*, no. 5, 243–300 (2003).

22. (with I. Rodnianski) "Time-decay for solutions of Schrödinger equations with rough and time-dependent potentials," *Invent. Math.* **155**, no. 3, 451–513 (2004).

23. (with B. Erdogan and R. Killip) "Energy growth in Schrödinger's equation with Markovian potentials," *Comm. Math. Phys.* **240**, no. 1–2, 1–29 (2003).

24. "On continuum incidence problems for circles," *J. Funct. Anal.* **201**, no. 2, 480–521, (2003).

25. (with I. Rodnianski and A. Soffer) "Dispersive analysis of charge transfer models," *Comm. Pure Appl. Math.* **58** (2005), no. 2, 149–216.

26. (with M. Goldberg) "Dispersive estimates for Schrödinger operators in dimensions one and three," *Comm. Math. Phys.* **251**, no. 1, 157–178 (2004).

27. "On discrete Schrödinger operators with stochastic potentials", *XIVth International Congress on Mathematical Physics*, 206–215, World Sci. Publ., Hackensack, NJ, 2005.

28. (with M. Goldberg) "A limiting absorption principle for the three-dimensional Schrödinger equation with L^p potentials," *Int. Math. Res. Not.* 2004, no. 75, 4049–4071.

29. "Dispersive estimates for Schrödinger operators in two dimensions," *Comm. Math. Phys.* **257** (2005), no. 1, 87–117.

30. (with A. Ionescu) "Agmon-Kato-Kuroda theorems for a large class of perturbations," *Duke Math. J.* **131** (2006), no. 3, 397–440.

31. (with B. Erdogan) "Dispersive estimates for Schrödinger operators in the presence of a resonance and/or an eigenvalue at zero energy in dimension three: I", *Discrete Contin. Dyn. Syst.* **15** (2006), no. 3, 703–723.

32. "Dispersive estimates for Schrödinger operators: a survey", Mathematical aspects of nonlinear dispersive equations, 255285, *Ann. of Math. Stud.*, 163, Princeton Univ. Press, Princeton, NJ, 2007.

33. (with J. Krieger) "Stable manifolds for all supercritical monic NLS in one dimension", *J. Amer. Math. Soc.* **19** (2006), no. 4, 815–920.

34. (with M. Erdogan) "Dispersive estimates for Schrödinger operators in the presence of a resonance and/or an eigenvalue at zero energy in dimension three: II", *J. Anal. Math.* **99** (2006), 199–248.

35. (with M. Goldstein) "Fine properties of the integrated density of states and a quantitative separation property the Dirichlet eigenvalues", *Geom. Funct. Anal.* **18** (2008), no. 3, 755–869

36. "A remark on Littlewood-Paley theory for the distorted Fourier transform", *Proc. Amer. Math. Soc.* **135** (2007), no. 2, 437–451

37. (with J. Krieger) "Non-generic blow-up solutions for the critical focusing NLS in 1-D", *J. Eur. Math. Soc.* (JEMS) **11** (2009), no. 1, 1–125.

38. (with J. Krieger) "On the focusing critical semi-linear wave equation," *Amer. J. Math.* **129** (2007), no. 3, 843–913.

39. "Spectral theory and nonlinear PDE: a survey", *Discrete Contin. Dyn. Syst.* **15** (2006), no. 3, 703–723.

40. (with L. Demanet) "Numerical verification of a gap condition for linearized NLS," *Nonlinearity* **19** (2006), 829–852.

41. (with J. Chan and M. Goldstein) "On non-perturbative Anderson localization for C^α potentials generated by shifts and skew-shifts", preprint 2006.

42. (with M. Goldstein) "On the formation of gaps in the spectrum of Schrödinger operators with quasi-periodic potentials." Spectral theory and mathematical physics: a Festschrift

in honor of Barry Simon's 60th birthday, 591–611, *Proc. Sympos. Pure Math.*, 76, Part 2, Amer. Math. Soc., Providence, RI, 2007

43. (with A. Soffer and W. Staubach) "Decay for the Schrödinger and wave evolutions on manifolds with conical ends, Part I, *Trans. Amer. Math. Soc.* **362** (2010), no. 1, 19–52.

44. (with M. Erdogan and M. Goldberg) "Strichartz and smoothing estimates for Schrödinger operators with large magnetic potentials in $\mathbb{R}^3$", *J. Eur. Math. Soc.* (JEMS) **10** (2008), no. 2, 507–531.

45. (with G. Mockenhaupt) "On the Hardy-Littlewood majorant problem for random sets," *J. Funct. Anal.* **256** (2009), no. 4, 1189–1237.

46. (with J. Krieger and D. Tataru) "Renormalization and blow up for charge one equivariant wave maps", *Invent. Math.* **171** (2008), no. 3, 543–615.

47. (with O. Costin, W. Staubach, S. Tanveer) "Semiclassical analysis of low and zero energy scattering for one dimensional Schrödinger operators with inverse square potentials", *J. Funct. Anal.* **255** (2008), no. 9, 2321–2362.

48. (with J. Krieger and D. Tataru) "Renormalization and blow up for the critical Yang-Mills problem." *Adv. Math.* **221** (2009), no. 5, 1445–1521.

49. "Stable manifolds for an orbitally unstable NLS," *Ann. of Math.* (2) **169** (2009), no. 1, 139–227.

50. (with J. Krieger and D. Tataru) "Slow blow up solutions for the $H^1(\mathbb{R}^3)$ critical focusing semi-linear wave equation", *Duke Math. J.* **147** (2009), no. 1, 1–53.

51. (with B. Erdogan and M. Goldberg) "Strichartz and smoothing estimates for Schrödinger operators with almost critical magnetic potentials in three and higher dimensions", *Forum Math.* **21** (2009), no. 4, 687–722.

52. (with Y. Peres) "Two Erdös problems on lacunary sequences: chromatic number and Diophantine approximation", *Bull. Lond. Math. Soc.* **42** (2010), no. 2, 295–300.

53. (with A. Soffer and W. Staubach) "Decay for the wave and Schrödinger evolutions on manifolds with conical ends, Part II", *Trans. Amer. Math. Soc.* **362** (2010), no. 1, 289–318.

54. (with M. Goldstein) "On resonances and the formation of gaps in the spectrum of quasi-periodic Schrödinger equations", *Ann. of Math.*, vol. **173** (2011), 337–475.

55. (with R. Donninger, A. Soffer) "A proof of Price's Law on Schwarzschild black hole manifolds for all angular momenta", *Advances in Mathematics* **226** (2011), pp. 484–540.

56. (with R. Donninger) "Decay estimates for the one-dimensional wave equation with an inverse power potential", *Int. Math. Res. Not. IMRN* 2010, no. 22, 4276–4300.

57. (with R. Donninger, A. Soffer) "On pointwise decay of linear waves on a Schwarzschild black hole background", *Comm. Math. Phys.* **309** (2012), no. 1, 51–86.

58. (with K. Nakanishi) "Global dynamics above the ground state energy for the focusing nonlinear Klein-Gordon equation", *J. Differential Equations* **250** (2011), no. 5, 2299–2333.

59. (with K. Nakanishi) "Global dynamics above the ground state energy for the cubic NLS equation in 3D", *Calc. Var. Partial Differential Equations* **44** (2012), no. 1-2, 1–45.

60. (with J. Krieger, K. Nakanishi) "Global dynamics away from the ground state for the energy-critical nonlinear wave equation", to appear in *Amer. Journal Math.*

61. (with K. Nakanishi) "Global dynamics above the ground state for the nonlinear Klein-Gordon equation without a radial assumption", to appear in *Arch. Rat. Mech. and Analysis.*

62. (with J. Krieger, K. Nakanishi) "Global dynamics above the ground state energy for the one-dimensional NLKG equation", *Math. Z.* **272** (2012), no. 1-2, 297–316.

63. (with R. Donninger) " Numerical study of the blowup/global existence dichotomy for the focusing cubic nonlinear Klein-Gordon equation", *Nonlinearity* **24** (2011), 2547–2562.

64. (with K. Nakanishi) "Invariant manifolds and dispersive Hamiltonian Evolution Equations", Zurich Lectures in Advanced Mathematics. European Mathematical Society (EMS), Zürich, 2011.

65. (with K. Nakanishi) "Center-stable manifolds around soliton manifolds for the nonlinear Klein-Gordon equation", *SIAM J. Math. Anal.* **44** (2012), no. 2, 1175–1210

66. (with J. Krieger) "Concentration compactness for critical wave maps", *EMS Monographs in Mathematics.* European Mathematical Society, 2012.

67. (with R. Donninger, O. Costin, S. Tanveer) "Semiclassical low energy scattering for one-dimensional Schrödinger operators with exponentially decaying potentials", *Annales Henri Poincaré* Vol. **13**, no. 6 (2012), 1371-1426

68. (with O. Costin, M. Huang) "On the spectral properties of $L_{\pm}$ in three dimensions." Nonlinearity **25** (2012), no. 1, 125–164.

69. (with A. Lawrie) "Scattering for wave maps exterior to a ball", Adv. Math. 232 (2013), no. 1, 57–97.

70. (with J. Krieger, K. Nakanishi) "Global dynamics of the nonradial energy-critical wave equation above the ground state energy", Discrete and Continuous Dynamical Systems Volume 33, Issue 6, 2013, 2423–2450.

71. (with R. Cote, C. Kenig) "Energy Partition for the linear radial wave equation", Math. Ann. 358 (2014), no. 3-4, 573–607.

72. (with R. Cote, C. Kenig, A. Lawrie) "Characterization of large energy solutions of the equivariant wave map problem: I", Amer. J. Math. 137 (2015), no. 1, 139–207.

73. (with R. Cote, C. Kenig, A. Lawrie) "Characterization of large energy solutions of the equivariant wave map problem: II", Amer. J. Math. 137 (2015), no. 1, 209–250.

74. (with R. Donninger, M. Huang, J. Krieger) "Exotic blowup solutions for the u^5 focusing wave equation in R^3", Michigan Math. J. 63 (2014), no. 3, 451–501.

75. (with J. Krieger) "Full range of blow up exponents for the quintic wave equation in three dimensions", J. Math. Pures Appl. (9) 101 (2014), no. 6, 873–900.

76. (with C. Kenig) "Antoni Zygmund's work on singular integrals", Wiad. Mat. 48 (2012), no. 2, 119–125.

77. "The method of concentration compactness and dispersive Hamiltonian evolution equations." Proceedings from the 2012 ICMP at Aalborg, Denmark.

78. "Regularity and convergence rates for the Lyapunov exponents of linear co-cycles", J. Mod. Dyn. 7 (2013), no. 4, 619–637.

79. (with J. Krieger, K. Nakanishi) "Threshold phenomenon for the quintic wave equation in three dimensions". Comm. Math. Phys. 327 (2014), no. 1, 309–332.

80. (with C. Kenig, A. Lawrie) "Relaxation of wave maps exterior to a ball to harmonic maps for all data", Geom. Funct. Anal. 24 (2014), no. 2, 610–647.

81. (with J. Krieger, K. Nakanishi) " Center-stable manifold of the ground state in the energy space for the critical wave equation", Math. Ann. 361 (2015), no. 1-2, 1–50.

82. (with C. Muscalu) "Linear and multi-linear Harmonic Analysis", Two Volumes, Cambridge Studies in Advanced Mathematics, 2013, *Cambridge University Press*.

83. "A Course in Complex Analysis and Riemann Surfaces", GTM series, AMS book, 2014.

84. (with R. Côte, A. Lawrie, C. Kenig) "Profiles for the radial focusing 4d energy critical wave equation", Comm. Math. Phys. 357 (2018), no. 3, 943–1008.

85. (with J. Krieger) "Large global solutions for energy supercritical nonlinear wave equations on $\mathbb{R}^{3+1}$", J. Anal. Math. 133 (2017), 91–131.

86. "Semilinear wave equations", Proceedings of the International Congress of Mathematicians — Seoul 2014. Vol. III, 425–450, Kyung Moon Sa, Seoul, 2014.

87. (with C. Kenig, A. Lawrie, B. Liu) "Channels of energy for the linear radial wave equation", Adv. Math. 285 (2015), 877–936.

88. (with C. Kenig, A. Lawrie, B. Liu) "Stable soliton resolution for exterior wave maps in all equivariance classes", Adv. Math. 285 (2015), 235–300.

89. (with H. Jia, B. Liu, G. Xu) "Generic and non-generic behavior of solutions to the defocusing energy critical wave equation with potential in the radial case", Int. Math. Res. Not. IMRN 2017, no. 19, 5977–6035.

90. (with N. Burq, G. Raugel) "Long time dynamics for damped Klein-Gordon equations", Ann. Sci. Éc. Norm. Supér. (4) 50 (2017), no. 6, 1447–1498.

91. (with D. Damanik, M. Goldstein, M. Voda) "Homogeneity of the spectrum for quasi-periodic Schrödinger operators ", J. Eur. Math. Soc. (JEMS) 20 (2018), no. 12, 3073–3111.

92. (with R. Costin, Y. Park) "Weber equation as a normal form and applications", J. Spectr. Theory 8 (2018), no. 2, 347–412.

93. (with M. Creek, R. Donninger, S. Snelson) "Linear stability of the Skyrmion", Int. Math. Res. Not. IMRN 2017, no. 8, 2497–2537.

94. (with M. Goldstein, M. Voda) "On localization and the spectrum of multi-frequency quasi-periodic operators", preprint 2016, submitted to the Carlos Kenig celebratory issue of the Vietnam Journal of Math.

95. (with M. Goldstein, M. Voda) "Cartan Covers and Doubling Bernstein Type Inequalities on Analytic Subsets of $\mathbb{C}^2$", Analysis at Large, Jean Bourgain memorial volume, Springer 2022.

96. (with M. Beceanu) "Structure formulas for wave operators", Amer. J. Math. 142 (2020), no. 3, 751–807.

97. (with M. Beceanu) "Structure formulas for wave operators under a small scaling invariant condition", Journal Spectral Theory, Volume 9, Issue 3, 2019, pp. 967–990

98. (with H. Jia, B. Liu, G. Xu) "Global center stable manifold for the defocusing energy critical wave equation with potential", Amer. J. Math. 142 (2020), no. 5, 1497–1557.

99. (with M. Goldstein, M. Voda) "On the Spectrum of Multi-Frequency Quasiperiodic Schrödinger Operators with Large Coupling", Invent. Math. 217 (2019), no. 2, 603–701.

100. (with N. Burq, G. Raugel) "Long time dynamics for nonlinear Klein-Gordon equations with time-dependent, asymptotically vanishing damping", preprint 2017.

101. (with Rui Han, Marius Lemm) "Weyl sums and the Lyapunov exponent for the skew-shift Schrödinger cocycle", Journal of Spectral theory, Volume 10, Issue 4, 2020, pp. 1139–1172.

102. (with Rui Han) "A higher dimensional Bourgain-Dyatlov fractal uncertainty principle", Anal. PDE 13 (2020), no. 3, 813–863.

103. (with Rui Han, Marius Lemm) "Effective multi-scale approach to the Schrödinger cocycle over a skew shift base", Ergodic Theory Dynam. Systems 40 (2020), no. 10, 2788–2853.

104. "Intertwining wave operators, Fourier restriction, and Wiener theorems", Conference Proceedings Kato Centenntial Meeting, Tokyo, 2018.

105. (with Joachim Krieger, Shuang Miao) "A stability theory beyond the co-rotational setting for critical Wave Maps blow up", 346 pages, preprint 2020.

106. "On pointwise decay of waves", J. Math. Phys. 62 (2021), no. 6, Paper No. 061509

107. (with Hans Lindblad, Jonas Luhrmann, Avy Soffer) "On modified scattering for 1D quadratic Klein-Gordon equations with non-generic potentials", Int. Math. Research Notices, 2022.

108. (with Alex Cohen, Zhenhao Li) "Uniqueness of excited states to $-\Delta u + u - u^3 = 0$ in three dimensions", preprint 2021, to appear in Analysis and PDE.

109. "An introduction to multiscale techniques in the theory of Anderson localization. Part I", Nonlinear Anal. 220 (2022), Paper No. 112869

110. (with J. Lührmann) "Asymptotic stability of the sine-Gordon kink under odd perturbations", to appear in the Duke Math. Journal

January 15, 2023