

List of Publications

Dr. habil. Wolfdieter L a n g

1. G. Geist, H. Kühnelt and W. Lang: “Invariant Regularization of the One-Meson Loop in Curved Space-Time”,
Il Nuovo Cimento 14 A (1973) 103-116.
2. W. Lang and J. Wess: “Investigation of a Non-Renormalizable Lagrangian Model Invariant under Super-Transformations”,
Nuclear Physics B 81 (1974) 249-252.
3. K. Fujikawa and W. Lang: “Perturbation Calculations for the Scalar Multiplet in a Superfield Formulation”,
Nuclear Physics B 88 (1975) 61-76.
4. K. Fujikawa and W. Lang: “On the Effective Potential for the Scalar Multiplet in the Supersymmetric Φ^3 Model”,
Nuclear Physics B 88 (1975) 77-85.
5. W. Lang: “On the Question of Induced Spontaneous Supersymmetry Breaking in First Order”,
Nuclear Physics B 114 (1976) 123-136.
6. W. Lang: “Currents in Supersymmetric Gauge Theories”,
Nuclear Physics B 150 (1979) 201-220. (Shortened version of the Habilitationsschrift, Fakultät für Physik, Universität Karlsruhe, Germany)
7. W. Lang, L. O’Raifeartaigh and G. Parravicini: “Group Theory of the Effective Potential ”,
Proceedings of the Cocoyoc Conference, Mexico, 1980,
Lecture Notes in Physics, Vol. 135, page 22-32, Springer Verlag, Berlin, Heidelberg, New York, 1980.
8. W. Lang: “Construction of the Minimal Superspace-Translation Tensor and the Derivation of the Supercurrent”,
Nuclear Physics B 179 (1981) 106-128.
9. S. P. Bedding and W. Lang: “Linearized Superfield Formulation of the New Minimal N=1 Supergravity”,
Nuclear Physics B 196 (1982) 532-543.

10. S. P. Bedding and W. Lang: "The Superspace-Translation Tensor and Linearized N=1 Supergravities",
Nuclear physics B 197 (1982) 132-154.
11. W. Lang: "Supersymmetry and Proton Decay",
Nuclear Physics B 203 (1982) 277-284.
12. S. P. Bedding and W. Lang: "Linearized Superfield Formulation of the New Non-minimal N=1 Supergravities",
Nuclear Physics B 204 (1982) 225-236.
13. W. Lang: "Model independent Improvement of Conformal and Poincaré Currents",
Nuclear Physics B 249 (1985) 131-142.
14. W. Lang, J. Louis and B. A. Ovrut: "16/16 Supergravity coupled to Matter: The low Energy Limit of the Superstring",
Physics Letters 158 B (1985) 40-46.
15. W. Lang, J. Louis and B. A. Ovrut: "Potentials of N=1 Supergravity couplings of scalar Multiplets",
Nuclear Physics B 261 (1985) 334-378.
16. W. Lang: "Linearized Superfield Formulation of 16/16 Supergravity and the Question of Reducibility",
Zeitschrift für Physik C 30 (1986) 599-604.
17. W. Lang: "Improved Minkowski-space Currents and Residual Shifts in the N=1 Superspace-Translation Tensor",
Zeitschrift für Physik C 32 (1986) 141-147.
18. W. Lang: "Model Independent Improvement of the N=1 super-Poincaré Superspace Current",
Nuclear Physics B 281 (1987) 613-638.
19. W. Lang: "The Minimal Superconformal (p,0) Supercurrents in Two Dimensions" ,
Zeitschrift für Physik C 37 (1988) 577-585.
20. W. Lang: "Superfield Currents of Poincaré $N = 1$ Supersymmetry",
Zeitschrift für Physik C 43 (1989) 149-158.
21. W. Lang: " N=1 Poincaré Superspace Current as Source of Supergravities " ,
Il Nuovo Cimento B 104 (1989) 399-439.

22. W. Lang: "On a Conformal Mapping of Golden Triangles",
Papua New Guinea Journal of Mathematics 2 (1991) 12-18.
23. W. Lang: "A Combinatorial Problem in the Fibonacci Number System and a Two-variable Generalization of Chebyshev's Polynomials",
The Fibonacci Quarterly 30,3 (1992) 199-210.
24. W. Lang: "On the Characteristic Polynomials of Fibonacci Chains",
The Journal of Physics A, 25 (1992) 5395-5413, *ibid.* 26 (1993) 1261.
25. W. Lang: "Two Families of Orthogonal Polynomials Related to Fibonacci Chains",
Proceedings of the "Fifth International Conference on Fibonacci Numbers and Their Applications", St. Andrews, Scotland, 1992,
Application of Fibonacci Numbers, Vol. 5, pp 429-440, eds.: G.E. Bergum, A.N. Philippou, and A.F. Horadam, Kluwer Academic Publishers, Dordrecht, 1993.
26. W. Lang: "Orthogonal Polynomials Related to Fibonacci Chains",
Proceedings of the "Third International Wigner Symposium ", Oxford, 1993,
eds.: L.L. Boyle, A.I. Solomon, *tbp.* Journal of Modern Physics B, xx.
27. W. Lang: "The Measure of the Orthogonal Polynomials Related to Fibonacci Chains: The Periodic Case",
The Journal of Physics A, 29 (1996) 4169-4185, *ibid.* 30 (1997) 765-766.
28. W. Lang: "Fibonacci Chain Polynomials: Identities from Self-Similarity",
Proceedings of the "Second International Workshop on Harmonic Oscillators", Cocoyoc, Mexico, 1994,
eds.: D. Han and K.B. Wolf, NASA Conference Publication 3286, 1995.
29. W. Lang: "The Wythoff and the Zeckendorf Representations of Numbers are Equivalent",
Proceedings of the "Sixth International Conference on Fibonacci Numbers and Their Applications", Pullman, WA, 1994,
"Applications of Fibonacci Numbers", Vol. 6, pp 321-337, eds. G.E. Bergum, A.N. Philippou, and A.F. Horadam, Kluwer Academic Publishers, Dordrecht, 1996.
30. W. Lang: "A Fibonacci-Fractal: a Bicolored Self-Similar Multifractal" in Proceedings of the "Seventh International Conference on Fibonacci Numbers and Their Applications", July 15-19, 1996, Graz, Austria,
"Applications of Fibonacci Numbers", Vol.7, pp 221-237 , eds. G.E. Bergum, A.N. Philippou, and A.F. Horadam, Kluwer Academic Publishers , Dordrecht, 1998.

31. W. Lang: "On sums of powers of zeros of polynomials" J. of Computational and Applied Mathematics 89 (1998) 237-256.
32. W. Lang: Problem Nr. B-858 , The Fibonacci Quarterly 36,4 (1998) 373-374.
Solution: "Calculating Convolutions" *ibid.* 37,2 (1999) 183-184.
33. W. Lang: "Moments of Roots of Chebyshev Polynomials", The American Mathematical Monthly 10,6 (1999) 471-472 (Solution to Problem Nr. 10448 by Fu-Chueng Chang *ibid.* , (1995) 360
34. "On Polynomials Related to Powers of the Generating Function of Catalan's Numbers", The Fibonacci Quarterly , Vol. 38,5 (2000) pp 408-419
35. W. Lang: " On Generalizations of the Stirling Number Triangles", (on line) Journal of Integer Sequences, Vol. 3 (2000) Article 00.2.4
<http://www.research.att.com/~njas/sequences/JIS/VOL3/LANG/lang.html>
36. W. Lang: Problem Nr. 10850, American Mathematical Monthly 108,1 (2001) 78;
Solution: "On a Matrix Obtained from the Catalan Generating Function", 109,1 (2002) 82-3 by Said Amghibech.
37. W. Lang: "On Polynomials Related to Derivatives of the Generating Function of Catalan Numbers", The Fibonacci Quarterly , Vol. 40,4 (2002) pp 299-313
38. W. Lang: "Riccati meets Fibonacci", The Fibonacci Quarterly , Vol. 42,3 (2004) pp 231-244.
39. W. Lang: "Two Normal Ordering Problems and Certain Sheffer polynomials", in eds. S. Elaydi, J. Cushing, R. Lasser V. Papageorgiou, A. Ruffing and W. van Assche, "Difference Equations, Special Functions and Orthogonal Polynomials", pp 354-368, World Scientific, 2007.
40. W. Lang: "Combinatorial Interpretation of Generalized Stirling Numbers", Journal of Integer Sequences, Vol. 12 (2009) Article 09.3.3.
41. W. Lang: "Collatz' Words, Sequences, and Trees", Journal of Integer Sequences, Vol. 17 (2014), Article 14.11.7.