

## Publications

1. M. Kreuzer, G. Pollak, H. Skarke and M. Schweda,  
“Nonlocal Counterterms in QED?”,  
Phys. Lett. **B196** (1987) 557.
2. O. Piguet, M. Schweda and H. Skarke,  
“Extended BRS Symmetry in Non-Light-Cone and Light-Cone Gauges”,  
Phys. Lett. **B210** (1988) 159.
3. H. Skarke and P. Gaigg,  
“Multiloop Integrals, Counterterms, and Renormalization of Yang-Mills  
Theories in the Light-Cone Gauge”,  
Phys. Rev. **D38** (1988) 3205.
4. H. Skarke,  
“On the Uniqueness of Prescriptions for Spurious Poles in Feynman  
Integrals”,  
Journ. Math. Phys. **30** (1989) 1270.
5. M. Schweda and H. Skarke,  
“The Structure of One-Loop Counterterms of Yang-Mills Theory in the  
Light-Cone Gauge”,  
Int. Journ. Mod. Phys. **A4** (1989) 3025.
6. P. Gaigg and H. Skarke,  
“Reply to ‘Comment on ‘Multiloop Integrals, Counterterms, and Renor-  
malization of Yang-Mills Theories in the Light-Cone Gauge’ ’ ”,  
Phys. Rev. **D41** (1990) 3278.
7. H. Skarke,  
“Extended BRS-Symmetry and Renormalization in the Axial Gauge”,  
in: *Physical and Nonstandard Gauges*, Eds. P. Gaigg, W. Kummer and  
M. Schweda, Lecture Notes in Physics, Springer, 1990.
8. M. Kreuzer, R. Schimmrigk and H. Skarke,  
“Abelian Landau-Ginzburg Orbifolds and Mirror Symmetry”,  
Nucl. Phys. **B372** (1992) 61, hep-th/9112047.

9. M. Kreuzer and H. Skarke,  
“On the Classification of Quasihomogeneous Functions”,  
Comm. Mat. Phys. **150** (1992) 137, hep-th/9202039.
10. M. Kreuzer and H. Skarke,  
“No Mirror Symmetry in Landau-Ginzburg Spectra!”,  
Nucl. Phys. **B388** (1992) 113, hep-th/9205004.
11. M. Kreuzer and H. Skarke,  
“All Abelian Symmetries of Landau-Ginzburg Potentials”,  
Nucl. Phys. **B405** (1993) 305, hep-th/9211047.
12. H. Skarke,  
“Towards Finiteness without Supersymmetry”,  
Int. Journ. Mod. Phys. **A9** (1994) 711, hep-th/9303151.
13. M. Kreuzer and H. Skarke,  
“ADE string vacua with discrete torsion”,  
Phys. Lett. **B318** (1993) 305, hep-th/9307145.
14. H. Skarke,  
“Renormalization Group Flow in a General Gauge Theory”,  
Phys. Lett. **B336** (1994) 32, hep-th/9407086.
15. H. Skarke,  
“A comment on ‘On Non-Abelian Duality’ by Enrique Álvarez, Luis  
Álvarez-Gaumé and Yolanda Lozano”,  
ITP-UH-14/94, hep-th/940977.
16. M. Kreuzer and H. Skarke,  
“Landau-Ginzburg orbifolds with discrete torsion”,  
Mod. Phys. Lett. **A10** (1995) 1073, hep-th/9412033.
17. M. Kreuzer and H. Skarke,  
“Orbifolds with discrete torsion and mirror symmetry”,  
Phys. Lett. **B357** (1995) 81, hep-th/9505120.
18. M. Kreuzer and H. Skarke,  
“On the classification of reflexive polyhedra”,  
Comm. Mat. Phys. **185** (1997) 495, hep-th/9512204.

19. H. Skarke,  
 “Weight systems for toric Calabi–Yau varieties and reflexivity of Newton polyhedra”,  
 Mod. Phys. Lett. **A11** (1996) 1637, alg-geom/9603007.
20. A. Avram, M. Kreuzer, M. Mandelberg and H. Skarke,  
 “Searching for K3 fibrations”,  
 Nucl. Phys. **B494** (1997) 567, hep-th/9610154.
21. M. Kreuzer and H. Skarke,  
 “Calabi-Yau 4-folds and toric fibrations”,  
 J. Geom. Phys. **26** (1998) 272, hep-th/9701175.
22. A. Avram, M. Kreuzer, M. Mandelberg and H. Skarke,  
 “The Web of Calabi-Yau Hypersurfaces in Toric Varieties”,  
 Nucl. Phys. **B505** (1997) 625, hep-th/9703003.
23. E. Perevalov and H. Skarke,  
 “Enhanced Gauge Symmetry in Type II and F-Theory Compactifications: Dynkin Diagrams From Polyhedra”,  
 Nucl. Phys. **B505** (1997) 679, hep-th/9704129.
24. P. Candelas and H. Skarke,  
 “F-theory,  $SO(32)$  and Toric Geometry”,  
 Phys. Lett. **B413** (1997) 63, hep-th/9706226.
25. M. Kreuzer and H. Skarke,  
 “Classification of Reflexive Polyhedra in Three Dimensions”,  
 Adv. Theor. Math. Phys. **2** (1998) no. 4, hep-th/9805190.
26. H. Skarke,  
 “String Dualities and Toric Geometry: An Introduction”,  
 Chaos, Solitons & Fractals **10** (1999) 543 (invited contribution),  
 hep-th/9806059.
27. H. Skarke,  
 “F-Theory and Toric Geometry”,  
 in: *Geometry and Quantum Physics*, Eds. H. Gausterer, H. Grosse, and L. Pittner, Lecture Notes in Physics, Springer, 2000.

28. M. Kreuzer and H. Skarke,  
“Reflexive polyhedra, weights and toric Calabi-Yau fibrations”,  
Rev. Math. Phys. **14** (2002) 343, math.AG/0001106.
29. M. Kreuzer and H. Skarke,  
“Complete Classification of Reflexive Polyhedra in Four Dimensions”,  
Adv. Theor. Math. Phys. **4** (2000) no. 6, hep-th/0002240.
30. H. Skarke,  
“Reflexive Polyhedra and their Applications in String and F-theory”,  
JHEP Conference Proceedings tmr99, hep-th/0002246.
31. X. de la Ossa, B. Florea and H. Skarke,  
“D-Branes on Noncompact Calabi-Yau Manifolds: K-Theory and Monodromy”,  
Nucl. Phys. **B644** (2002) 170, hep-th/0104254.
32. L. Hille and H. Skarke,  
“Reflexive Polytopes in Dimension 2 and Certain Relations in  $SL_2(\mathbf{Z})$ ”,  
Journal of Algebra and its Applications **1** (2002) 159.
33. H. Skarke,  
“Non-perturbative Gauge Groups and Local Mirror Symmetry”,  
JHEP **0111** (2001) 013, hep-th/0109164.
34. M. Kreuzer and H. Skarke,  
“PALP: A Package for Analyzing Lattice Polytopes with Applications to Toric Geometry”,  
Comput. Phys. Commun. **157** (2004) 87, math.SC/0204356.
35. V. Bouchard and H. Skarke,  
“Affine Kac-Moody algebras, CHL strings and the classification of tops”,  
Adv. Theor. Math. Phys. **7**, no. 2 (2003), hep-th/0303218.
36. H. Skarke,  
“How to Classify Reflexive Gorenstein Cones”,  
in: *Strings, Gauge Fields, and the Geometry Behind – The Legacy of Maximilian Kreuzer*, Eds. A. Rebhan, L. Katzarkov, J. Knapp,

- R. Rashkov, E. Scheidegger, World Scientific, December 2012, arXiv:1204.1181 [hep-th].
37. A. P. Braun, J. Knapp, E. Scheidegger, H. Skarke, N.-O. Walliser, “PALP - a User Manual”,  
in: *Strings, Gauge Fields, and the Geometry Behind – The Legacy of Maximilian Kreuzer*, Eds. A. Rebhan, L. Katzarkov, J. Knapp, R. Rashkov, E. Scheidegger, World Scientific, December 2012, arXiv:1205.4147 [math.AG].
  38. P. Candelas, A. Constantin, H. Skarke, “An Abundance of K3 Fibrations from Polyhedra with Interchangeable Parts”,  
Comm. Math. Phys. **324** (2013) 937, arXiv:1207.4792 [hep-th].
  39. H. Skarke, “Why is the Legendre Transformation Involutive?”,  
Am. J. Phys. **81**, 554 (2013), arXiv:1209.6193 [math-ph].
  40. H. Skarke, “Inhomogeneity implies Accelerated Expansion”,  
Phys. Rev. **D89** (2014) 043506, arXiv:1310.1028 [astro-ph.CO].
  41. H. Skarke, “Evolution of an Inhomogeneous Universe”,  
Phys. Rev. **D90** (2014) 063523, arXiv:1407.6602 [astro-ph.CO].
  42. H. Skarke, “Cosmic Acceleration as an Optical Illusion”,  
Eur. Phys. J. C **77** (2017) 3, 177, arXiv:1508.01510 [gr-qc].
  43. A. Banlaki, A. Chowdhury, A. Kidambi, M. Schimpf, H. Skarke, T. Wrase “Calabi-Yau manifolds and sporadic groups”,  
JHEP **02** (2018) 129, arXiv:1711.09698 [hep-th].
  44. F. Schöller, H. Skarke, “All Weight Systems for CalabiYau Fourfolds from Reflexive Polyhedra”,  
Comm. Math. Phys. **372** (2019) 2, 657-678, arXiv:1808.02422 [hep-th].

45. H. Skarke,  
“Redshift and gauge choice”,  
Phys. Rev. **D102** (2020) 123520, arXiv:2001.09889 [gr-qc].