

Publications of Lutz Priese

Books

- Erk, Priese Theoretische Informatik, Springer Verlag, pp 433, 2000

2nd edition 2002, 3rd edition 2008
- Priese, Wimmel Theoretische Informatik: Petri-Netze, Springer Verlag
2003, pp 376

Publications in Journals and Proceedings

Abbreviations:

AI	Acta Informatica
CCVPR	IEEE Conference on Computer Vision and Pattern Recognition
IJTP	International Journal of Theoretical Physics
IPL	Information Processing Letter
DLT	Developments in Language Theory
ICGST	International Conference on Graphics, Vision and Image Processing
ICPR	International Conference on Pattern Recognition
JC	Journal of Cybernetics
JCSS	Journal of Computer and System Sciences
JIC	Journal Information and Control
JMA	Journal of Microcomputer Applications
JTCS	Journal of Theoretical Computer Science
LNCS	Lecture Notes on Computer Science
PSB	Pacific Symposium on Biocomputing
SCIA	Scandinavian Conference on Image Analysis
SICOMP	SIAM Journal on Computing
VISAPP	Conference on Computer Vision Theory and Applications
ZML	Zeitschrift für mathematische Logik, formerly:
ZMLG	Zeitschrift für mathematische Logik und Grundlagen der Mathematik

1. A Combinatorial Approach to Self-Correction
JC, vol 4, 3, pp 7-25, 1974
(with D. Rödding)

2. On the Minimal Complexity of Component-Machines for Self-Correcting Networks
JC, vol 5, 4, pp 103-125, 1975
3. On a Simple Combinatorial Structure Sufficient for Sublying Nontrivial Self-Reproduction
JC, vol 6, pp 101-137, 1976
4. Reversible Automaten und einfache universelle 2-dimensionale Thue-Systeme
ZMLG, vol 22, pp 353-384, 1976
5. Normed Networks: Their Mathematical Theory and Applicability
Applied General Systems Research, ed. G.Klir, Nato Series, Series II: Systems Sciences, pp 381-394, 1978
6. A Note on Asynchronous Cellular Automata
JCSS, vol 17,2, pp 237-252, 1978
7. Über eine minimale universelle Turing-Maschine
4th GI Conference, LNCS 67, pp 244-259, Aachen 1979
8. On Stable Organizations of Normed Networks
Progress in Cybernetics and Systems Research, ed. F. Pichler, Hemisphere Publ. Corp., pp 159-169, 1979
9. Über ein 2-dimensionales Thue-System mit 2 Regeln und unentscheidbarem Wortproblem
ZML, vol 25, 2, pp 179-192, 1979
10. Towards a Precise Characterization of the Complexity of Universal and Non-universal Turing Machines
SICOMP, vol 931, 8, pp 508-523, 1979
11. On the Concept of Simulation in Asynchronous, Concurrent Systems
Progress in Cybernetics and Systems Research vol. VII, ed. Pichler, Hanika, pp 85-92, 1980
12. Universal Asynchronous Iterative Arrays of Mealy-Automata
AI, vol. 13, pp 269-285, 1980
(with H. Kleine Büning)
13. Über eine mathematische Theorie von Automaten und deren Anwendungen
Zur Philosophie der mathematischen Erkenntnis, eds. Börger, Bernocchi, Kaulbach, Verlag Königshausen und Neumann, pp 107-123, 1981

14. Modular Implementation of Concurrency
IJTP, vol. 21, 12, pp 993-1005, 1982
15. Petri-Net Implementation by a Universal Cell Space
JIC, vol. 53, pp 121-138, 1982
(with U. Golze)
16. Automata and Concurrency
JTCS, vol. 25, pp 221-265, 1983
17. Modular Decomposition of Automata
LNCS 171, pp 198-236, 1984
(with A. Brüggemann, D. Rödding, Schütz)
18. On a Fast Composition Method in some Models of Concurrent Computations
JTCS, vol. 39, pp 107-121, 1985
19. Some Results on Fairness - the Regular Case
LNCS 247, pp 383-395, 1987
(with R. Rehrmann, U. Willecke-Klemme)
20. An Introduction to the Regular Theory of Fairness
JTCS, vol. 54, pp139-163, 1987
(with R. Rehrmann, U. Willecke-Klemme)
21. Communication with Concurrent Systems via I/O-Procedures
LNCS 270, pp 294-305, 1987
22. Deciding the Path- and Word-Fair Equivalence Problem
LNCS 329, pp 200-222, 1988
(with R. Rehrmann)
23. Fairness
Bulletin EATCS, vol. 35, pp 171-180, 1988
24. On the Minimal Number of x-Operators to Model Regularity in Fair SCCS
IPL, vol. 29, pp 297-300, 1988
(with I. Guessarian)
25. On the Existance of Fair Schedulers
LNCS 385, pp 272-287, 1989
(with M. Nivat)

26. A Fast Generator for the Hierarchical Structure Code with Concurrent Implementation Techniques
Informatik-Fachberichte 219, Springer Verlag, pp 416-419, 1989
(with V. Rehrmann, U. Schwolle)
27. An Asynchronous Parallel Algorithm for Picture Recognition Based on a Transputer Net
JMA, vol. 13, pp 57-67, 1990
(with V. Rehrmann, U. Schwolle)
28. Semantics for Abstract Fairness Using Metric Spaces
LNCS 440, pp 335-368, 1990
(with D. Nolte)
29. Approaching Fair Computations by Ultra Metrics
LNCS 469, pp 420-433, 1990, also in
LITP Report 90.22, Univ. Paris VII, pp 17, 1990
30. Asynchrone Parallelisierungsstrategien zur Generierung des Hierarchischen Strukturcodes (HSC)
Informatik Fachberichte 272, Springer Verlag, pp 166-173, 1991
(with V. Rehrmann, U. Schwolle)
31. Fairness in Models with True Concurrency
LNCS 527, pp 455-469, 1991
(with D. Nolte)
32. Fairness, Distances and Degrees
JTCS 97, pp 131-142, 1992, also in
Rapports de Recherche, No. 1199, INRIA, France, pp 16, 1990, (with Ph. Darondeau, D. Nolte, S. Yoccoz)
33. Strong Fairness and Ultra Metrics
JTCS 99, pp 121-140, 1992
(with D. Nolte)
34. Hierarchische Generierung von Formprimitiven als Basis der parallelen Bilderkennung
Parallele Datenverarbeitung mit dem Transputer, ed M.Baumann, R.Grebe, pp 275-284, 1993
Short version in: Transputer-Anwender-Treffen 1992 (Abstraktband), pp 152-153, Aachen, 1992
(with U. Schwolle, A. Brenneken, G. Windhorst)

35. Fairness, Part II
Bulletin EATCS, vol. 50, pp 247-259, 1993
36. Traffic Sign Recognition Based on Color Image Evaluation
Proceedings Intelligent Vehicles '93 Symposium, Tokyo, IEEE, pp 95-100, 1993
(with V. Rehrmann, R. Schian, R. Lakmann)
37. A Fast Hybrid Color Segmentation Method
Proceedings 15th DAGM-Symposium Mustererkennung, eds. S.J. Pöppel, H. Handels, Springer Verlag, pp 297-304, 1993
(with V. Rehrmann)
38. On Hierarchical Color Segmentation and Applications
Proc. CCVPR, IEEE Computer Society Press, pp 633-634, New York 1993
(with V. Rehrmann)
39. New Results on Traffic Sign Recognition
Proceedings Intelligent Vehicles Symposium '94, Paris, pp 249-254, 1994
(with J. Klieber, R. Lakmann, V. Rehrmann, R. Schian)
40. Parallele Farbsegmentierung mit dem CSC
Parallele Datenverarbeitung aktuell: TAT 94, eds. R. Flieger, R. Grebe, IOS press, pp 236-245, 1994
(with T. Bergmann, V. Rehrmann, M. Rothhar)
41. Characterizing Behavioural Congruences for Petri Nets, Proceedings CONCUR 95, LNCS 962, Philadelphia 1995
(with M. Nielsen, V. Sassone)
42. Verarbeitung unscharfen Wissens in hybriden, parallelen Entscheidungsgraphen am Beispiel der Verkehrszeichenerkennung
Proceedings KI-DAGM 95, pp 148-149, Bielefeld 1995
(with R. Lakmann, V. Rehrmann)
43. Ideogram Identification in a Realtime Traffic Sign Recognition System
Proceedings Intelligent Vehicles Symposium, Detroit. IEEE. pp 310-314, 1995
(with L. Lakmann, V. Rehrmann)
44. A Parallel System for Real-Time Traffic Sign Recognition
Proceedings International Workshop on Advanced Parallel Processing Technologies, Peking, 1995
(with R. Lakmann, V. Rehrmann)

45. Traffic Sign Recognition Based on a Hybrid, Parallel Decision Graph
 Proceedings International Conference on Robotics, Vision and Parallel Processing for Industrial Automation, pp 61-66, Ipoh 1996
 (with R. Lakmann, V. Rehrmann)
46. Farbtextursynthese mit Farbkovarianzmerkmalen
 Proceedings 2. Workshop Farbbildverarbeitung, S. 21-24, Ilmenau 1996
 (with R. Lakmann)
47. Klassifikation von Farbtexturen mit Farbkovarianzmerkmalen
 Proceedings 3. Workshop Farbbildverarbeitung, pp. 17-23, Erlangen 1997
 (with R. Lakmann)
48. Ein Farbkovarianzmodell zur Analyse und Synthese von Farbtexturen
 Proceedings 19th DAGM Symposium, pp 55-62, Braunschweig 1997.
 (with R. Lakmann)
49. Automatische Lagebestimmung von Pupillen in der Medizinischen Datenverarbeitung
 Proceedings 19th DAGM Symposium, pp 568-577, Braunschweig 1997
 (with R. Schian)
50. Detektion von Purkinje-Reflexen in Infrarot-Videobildern
 Proceedings Digitale Bildverarbeitung in der Medizin, pp. 192-196, Freiburg 1997.
 (with R. Schian, J.C. Barry, U. Pongs)
51. A Reduced Covariance Color Texture Model for Micro-Textures
 Proceedings 10th SCIA, pp 947-953, Lappeenranta 1997
 (with R. Lakmann)
52. Abstract Fairness and Semantics
 TCS 177, pp 139 - 153, 1997
 (with D. Nolte)
53. Algebraic Characterization of Petri Net Pomset Semantics
 Proceedings CONCUR 97, LNCS 1243, pp.406-420, 1997
 (with H. Wimmel)
54. A Uniform Approach to True-Concurrency and Interleaving Semantics for Petri Nets
 TCS 206, pp.219-256, 1998
 (with H. Wimmel)

55. Finite H-Systems with 3 Test Tubes are not Predictable
 Proceedings PSB 3, pp. 545-556, 1998.
 (with M. Margenstern, Y. Rogojin)

56. Fast and Robust Segmentation of Natural Color Scenes
 Proceedings 3rd Asian Conference on Computer Vision, Hongkong, 8-10th
 January 1998
 (with V. Rehrmann)

57. Automatische Augenstellungsbestimmung in Infrarot-Videobild-Sequenzen
 Proceedings Workshop Bildverarbeitung für die Medizin 1998, pp. 44-48,
 Aachen 1998
 (with R. Schian, J.C. Barry, U. Pongs)

58. Vergleich von Farbsegmentierungstechniken
 Proceedings 9. Heidelberger Bildverarbeitungsforum, 3rd November 1998,
 pp.57-75

59. On Reversible Grammars and Distributed Splicing Systems
 Grammatical Models of Multi-Agent Systems, Eds. G. Paun und A. Salo-
 maa, Gordon and Breach Science Publishers, 1999, pp334-342

60. Real-Time Detection of Arbitrary Objects in Alternating Industrial Environ-
 ments
 Proceedings 12th SCIA, Bergen 2001
 (with D.Balthasar, T.Erdmann, J.Pellenz, V.Rehrmann, J.Zeppen)

61. Fast Projection Plane Classifier
 Proceedings ICPR 2002, Quebec City 2002
 (with D.Balthasar)

62. Properties of Three-Dimensional Island Hierarchy for Segmentation of 3D
 Images with the Color Structure Code
 Proceedings DAGM 2002 (24th DAGM-Conference,September 16-18, 2002,
 Zürich)
 (with P.Sturm)

63. 3D-Color-Structure-Code. A Hierarchical Region Growing Method for Seg-
 mentation of 3D-Images
 Proceedings 13th SCIA 2003, LNCS 2749, pp. 603-608, Halmstad 2003.
 (with P.Sturm)

64. 3D-Color-Structure-Code - A Hierarchical Region Growing Method for Segmentation of 3D-Images
 Proceedings 13th SCIA, pp 603-608, Halmstadt, 2003
 (with P. Sturm)
65. Objekt-Tracking mit n:m-Matching
 Proceedings 9th Workshop Farbbildverarbeitung, Esslingen 2003
 (with M. Ross)
66. Hierarchical Cell Structures for Segmentation of Voxel Images
 Proceedings 14th SCIA, pp 6-16, Joensuu 2005
 (with P. Sturm)
67. Semi-rational Sets of DAGs
 Proceedings DLT, pp 385-396, Palermo 2005
68. Hybrid and Unsupervised Segmentation of 3D Brain MR Images
 Proceedings ICGST 05, pp 247-252, Kairo 2005, also in
 ICGST Special Issue on Medical Image Processing 2006
 (with H. Wang, P. Sturm, F. Schmitt)
69. Improved Segmentation of MR Brain Images Including Bias Field Correction Based on 3D-CSC
 Proceedings 1st VISAPP 2006, Setubal, 2006
 (with H. Wang, P. Sturm, F. Schmitt)
70. Analysis of Brain Images Using the 3D-CSC Segmentation Method
 Medical Imaging 2006: Image Processing, ed. Reinhardt et al, pp 1303-1313, San Diego 2006
 (with R. Matern, F. Schmitt, P. Sturm, H. Wang, R. Wickenhöfer)
71. Some Examples of Semi-rational DAG Languages
 Proceedings 10th DLT, LNCS vol. 4036, pp 351 - 362, Santa Barbara 2006
 (with J.R. Menzel, M. Schuth)
72. A CSC Based Classification Method for CT Bone Images
 Proceedings 3rd International Symposium on 3D Data Processing, Visualization, and Transmission, pp. 1080-1084, Chapel Hill 2006
 (with P. Sturm, H. Wang)
73. A General Segmentation Technique for Voxel Images with Application in Medicine: 3D-CSC

- Advances in Medical Engineering, ed. Buzug et al, Springer Series: Proceedings in Physics 114, pp 187-192, 2007
(with F. Schmitt, P. Sturm)
74. Finite Automata on Unranked and Unordered DAGs
Proceedings 11th DLT, LNCS 4588, pp 346-360, Turku 2007
 75. Fast Two-step Segmentation of Natural Color Scenes Using Hierarchical Region-growing and a Color-gradient Network
Journal of the Brazilian Computer Society. vol. 14, pp 29–40, 2008
(with A. von Wangenheim, R.F. Bertoldi, D. Abdala, M. Michael, F. Schmitt)
 76. Recent Advances in 3D-CSC Based MR Brain Image Segmentation
Medical Imaging 2008: Image Processing, eds. Reinhardt et al, vol. 6914.
(with F. Schmitt)
 77. Himmelsdetektion in CSC-segmentierten Farbbildern
14. Workshop Farbbildverarbeitung, eds. Helling et al, Shaker Verlag, pp 77–84, 2008
(with F. Schmitt)
 78. Vanishing Point Detection with an Intersection Point Neighborhood
Discrete Geometry for Computer Imagery, LNCS 5810, pp 132–143, 2009
(with F. Schmitt)
 79. Grouping of Semantically Similar Image Positions
Proceedings 16th SCIA, LNCS 5575, pp 726-734, Oslo 2009
(with F. Schmitt, N. Hering))
 80. Sky Detection in CSC-segmented Color Images
Proceedings 4th VISAPP, pp 101-106, Lisboa 2009
(with F. Schmitt)
 81. Image Understanding Using Self-similar SIFT features
Proceedings 4th VISAPP 2009, pp 114-119, Lisboa 2009
(with N. Hering, F. Schmitt)