

Publications

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2011

Conference Proceedings

- [1] Ch. Keimel, M. Rothbucher, K. Diepold. Extending video quality metrics to the temporal dimension with 2D-PCR. IS&T/SPIE Electronic Imaging 2011, Image Quality and System Performance VIII.
- [2] Ch. Keimel, A. Redl, K. Diepold. Comparison of HDTV formats in a consumer environment, IS&T/SPIE Electronic Imaging 2011, Image Quality and System Performance VIII.

2010

Journals & Book Chapters

- [3] U. Kirchmaier, S. Hawe, K. Diepold. Dynamical Information Fusion of Heterogeneous Sensors for 3D Tracking Using Particle Swarm Optimization. Information Fusion. Article in press.
- [4] A. Bannat, T. Bautze, M. Beetz, J. Blume, K. Diepold, C. Ertelt, F. Geiger, T. Gmeiner, T. Gyger, A. Knoll, C. Lau, C. Lenz, M. Ostgathe, G. Reinhart, W. Roesel, T. Ruehr, A. Schuboe, K. Shea, I. Stork genannt Wersborg, S. Stork, W. Tekouo, F. Wallhoff, M. Wiesbeck and M. F. Zaeh. Artificial Cognition in Production Systems. IEEE Trans. Automation Science and Engineering. 2010, to appear.
- [5] Florian Schreiner, Klaus Diepold. MPEG-A and its Open Access Application Format In: The Handbook of MPEG Applications: Standards in Practice. Editors: Marios Angelides, Harry Agius. John Wiley and Sons 2010, to appear.

Conference Proceedings

- [6] Christian Keimel, Michel Sarkis, Klaus Diepold. Improving the Visual Quality of AVC/H.264 by Combining It with Content Adaptive Depth Map Compression , 28th Picture Coding Symposium, PCS 2010.
- [7] Martin Rothbucher, David Kronmüller, Hao Shen, Klaus Diepold. Underdetermined Binaural 3D Sound Localization Algorithm for Simultaneous Active Sources , Audio Engineering Society Convention, 2010.
- [8] Christian Keimel, Julian Habigt, Tim Habigt, Martin Rothbucher, Klaus Diepold. Visual Quality of Current Coding Technologies at High Definition IPTV Bitrates IEEE International Workshop on Multimedia Signal Processing, MMSP 2010.
- [9] Martin Rothbucher, Tim Habigt, Johannes Feldmaier, Klaus Diepold. Integrating HRTF Sound Synthesis into Mumble IEEE International Workshop on Multimedia Signal Processing, 2010.
- [10] Lukas Lohaus, Thibault Bautze, Klaus Diepold, Ingo Stork. Evaluation of optical sensors for laser welding in a technical cognitive environment Laser Institute of America ICALEO Congress, 2010.

- [11] Rothbucher, Martin; Durkovic, Marko; Shen, Hao; Diepold, Klaus. HRTF Customization using Multiway Array Analysis 8/2010, Inproceedings Human Centered Robotic Systems Workshop (HCRS) 2010.
- [12] Walter Bamberger, Josef Schlittenlacher, Klaus Diepold. A Trust Model for Intervehicular Communication Based on Belief Theory. Proceedings of the Second IEEE International Conference on Social Computing (SocialCom2010), 8/2010. Best SocialCom Conference Paper Award
- [13] Christian Keimel, Klaus Diepold. On the use of reference monitors in subjective testing for HDTV. Second International Workshop on Quality of Multimedia Experience (QoMEX), 2010.
- [14] Michael Zwick, Florian Obermeier, Klaus Diepold. Predicting Cache Contention with Setvectors. Proceedings of the International MultiConference of Engineers and Computer Scientists, 2010.
- [15] Christian Keimel, Tobias Oelbaum, Klaus Diepold. Improving the prediction accuracy of video quality metrics. IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), 2010.
- [16] Simon Hawe, Ulrich Kirchmaier, Klaus Diepold. Analysis of a multimodal-camera and its advantages for autonomous vehicles. SPIE Electronical Imaging Image Processing: Machine Vision Applications III, Jan. 2010.
- [17] Ulrich Kirchmaier, Simon Hawe, Klaus Diepold. A line detection and description algorithm based on swarm intelligence. SPIE Electronical Imaging Image Processing: Machine Vision Applications III, 2010.
- [18] Christian Keimel, Klaus Diepold. Improving the prediction accuracy of PSNR by simple temporal pooling. Fifth International Workshop on Video Processing and Quality Metrics for Consumer Electronics - VPQM 2010.

2009

Journals

- [19] El-Fotouh, Mohamed, Schreiner, Florian, Kim, Taehyun, Diepold, Klaus. The MPEG Open Access Application Format. IEEE Multimedia Magazine. Vol. 16, No. 3, pp.8-12, 2009.
- [20] Sarkis, Michel, Christian T. Senft, Diepold, Klaus. Calibrating an Automatic Zoom Camera with Moving Least-Squares. IEEE Transactions on Automation Science and Engineering, Vol.6, No. 3, pp.492-503, July, 2009.
- [21] El-Fotouh, Mohamed, Diepold, Klaus. The Pushdown Attack and Attacking the Substitution Cipher Chaining mode (SCC). Journal of Information Assurance and Security (JIAS), No. 4, pp. 546-559, 2009.
- [22] Sarkis, Michel, Diepold, Klaus. Content Adaptive Mesh Representation of Images using Binary Space Partitions. IEEE Transactions on Image Processing. Vol.18, No. 5, pp. 1069-1079, May, 2009.
- [23] Oelbaum, Tobias, Keimel, Christian, Diepold, Klaus. Rule-Based No-Reference Video Quality Evaluation Using Additionally Coded Videos. IEEE Journal of Selected Topics in Signal Processing. Vol. 3, No. 2, pp. 294-303, April 2009.

- [24] Schuon, Sebastian, Diepold, Klaus. Comparison of Motion De-Blur Algorithms and Real World Deployments. *Acta Astronautica*, Vol. 53, Issues 11-12, p.1050-1065, 2009.

Conference Proceedings

- [25] Zia Waqar, Diepold, Klaus, Sarkis, Michel. Optimization of Video Coding for Telepresence Applications. 12/2009, IEEE Workshop on Applications of Computer Vision (WACV) 2009.
- [26] Stork, Ingo, Schorp, Konstantin, Bautze, Thibault, Diepold, Klaus. Multiple sensors and artificial neural networks in a cognitive technical system for laser welding. 12/2009, IEEE/ISSNIP, Intelligent Sensors, Sensor Networks and Information Processing.
- [27] Stork, Ingo, Bautze, Thibault, Born, Frederik, Diepold, Klaus. A cognitive approach for a robotic welding system learning how to weld from acoustic data 12/2009, IEEE International Symposium on Computational Intelligence.
- [28] Waqar Zia, Michel Sarkis, Klaus Diepold. Impact of Video Source Coding on Performance of Stereo Matching. Workshop on Human Centered Robotic Systems (HCRS). Nov. 2009.
- [29] Heindlmaier, Michael, Yu Lang and Diepold, Klaus. The Impact of Nonlinear Filtering and Confidence Information on Optical Flow Estimation in a Lucas & Kanade Framework. 11/2009, IEEE International Conference on Image Processing (ICIP).
- [30] Rothbucher, Martin, Shen, Hao, Diepold, Klaus. Dimensionality Reduction in HRTF by using Multiway Array Analysis. 11/2009, Proceedings of the 3rd International Workshop on Human-Centered Robotic Systems (HCRS'09).
- [31] Sarkis, Michel, Diepold, Klaus. Depth Map Compression via Compressed Sensing. 11/2009, IEEE International Conference on Image Processing (ICIP).
- [32] Bautze, Thibault, Diepold, Klaus, Kaiser, Tobias. A Cognitive Approach to Monitor and Control Focal Shifts in Laser Beam Welding Applications. 11/2009, IEEE International Conference on Intelligent Computing and Intelligent Systems.
- [33] Stork, Ingo, Borgwardt, Felix, Diepold, Klaus. Real-time cognitive technical systems, a learning material processing system, social and future aspects. 11/2009, IEEE/ARSO, Advanced Robotics and its Social Impacts.
- [34] Zwick, Michael, Durkovic, Marko, Obermeier, Florian, Diepold, Klaus. Setvectors for Memory Phase Classification. 10/2009, International Conference on Computer Science and Applications
- [35] Schroth, Georg, Stork, Ingo, Diepold, Klaus. A cognitive system for autonomous robotic welding 10/2009, IEEE/RSJ Intelligent Robots and Systems.
- [36] Shen, Hao, Diepold, Klaus, Hüper, Knut. Geometric Algorithms for the Non-Whitened One-Unit Linear Independent Component Analysis Problem. 9/2009, Proceedings of the 17th IEEE Workshop on Statistical Signal Processing.
- [37] Sarkis, Michel, Zia Waqar, Diepold, Klaus. Fast Depth Map Compression and Meshing with Compressed Tritree. 9/2009, The Ninth Asian Conference on Computer Vision (ACCV).
- [38] Hawe, Simon, Kirchmaier, Ulrich, Diepold, Klaus. MutanT: A Modular and Generic Tool for Multi-Sensor Data Processing. 7/2009, 12th International Conference on Information Fusion FUSION2009.

- [39] Keimel, Christian, Oelbaum, Tobias, Diepold, Klaus. Improving the verification process of video quality metrics. 7/2009, Proceedings of International Workshop on Quality of Multimedia Experience, 2009. QoMEx 2009.
- [40] El-Fotouh, Mohamed, Diepold, Klaus. The Security of Dynamic and Static Substitution Models. 7/2009, the 2009 International Conference on Information Security and Privacy (ISP-09).
- [41] El-Fotouh, Mohamed, Diepold, Klaus. Dynamic Permutation Model. 7/2009, the 2009 International Conference on Information Security and Privacy (ISP-09).
- [42] El-Fotouh, Mohamed, Diepold, Klaus. Breaking the Substitution Cipher Chaining mode (SCC-256), 6/2009, ICCIS 2009.
- [43] El-Fotouh, Mohamed, Diepold, Klaus. Cryptanalysis of Substitution Cipher Chaining mode, 6/2009, IEEE International Conference on Communications.
- [44] El-Fotouh, Mohamed, Diepold, Klaus. Dynamic Injection Model. 6/2009, ICCIS 2009.
- [45] El-Fotouh, Mohamed, Diepold, Klaus. The Pushdown Attack on AES. 6/2009, SECURWARE 2009.
- [46] Obermeier, Florian, Simon Hawe, Zwick, Michael, Diepold, Klaus. Optical Flow Reliability Measures and their Applicability for Multi-Sensor Fusion. 6/2009, IEEE Intelligent Vehicles Symposium.
- [47] El-Fotouh, Mohamed, Diepold, Klaus. A Fast and Scalable Network Encryption Scheme, 6/2009, ICCIS 2009.
- [48] El-Fotouh, Mohamed, Diepold, Klaus. Enhanced Cryptanalysis of Substitution Cipher Chaining mode (SCC-128). 5/2009, Cryptology ePrint.
- [49] El-Fotouh, Mohamed, Diepold, Klaus. Extended Substitution Cipher Chaining mode (ESCC), 4/2009, Cryptology ePrint Archive.
- [50] Keimel, Christian, Oelbaum, Tobias, Diepold, Klaus. No-reference video quality evaluation for high-definition video. 4/2009, Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing, 2009. ICASSP 2009.
- [51] El-Fotouh, Mohamed, Diepold, Klaus. The Analysis of Galois Substitution Counter Mode (GSCM), 3/2009, Cryptology ePrint Archive.
- [52] Sarkis, Michel, Schwing, Alexander, Diepold, Klaus. Enhancing the Motion Estimate in Bundle Adjustment Using Projective Newton-type Optimization on the Manifold. 1/2009, IS&T/SPIE Electronic Imaging - Image Processing: Machine Vision Applications II

2008

Journals

- [53] Keyrouz, Fahkredine, Diepold, Klaus. A New HRTF Interpolation Approach for Fast Synthesis of Dynamic Environmental Interaction. 2/2008, Journal of the Audio Engineering Society (JAES). Vol. 56, Issue 1/2, pp. 28-35; January 2008.

Conference Proceedings

- [54] Sarkis, Michel, Diepold, Klaus. Sparse stereo matching using belief propagation. 10/2008, IEEE International Conference on Image Processing.
- [55] Markwardt, Stefan, Scheurle, Jürgen, Diepold, Klaus, Durkovic, Marko. Data Processing based on Geometric Feature Detection. Proc. CoTeSys 1st International Workshop on Cognition for Technical Systems, Munich, 2008.
- [56] Schuon, Sebastian, Durkovic, Marko, Diepold, Klaus, Scheuerle, Jürgen, Markward, Stefan . Truly Incremental Locally Linear Embedding. 10/2008, CoTeSys 1st International Workshop on Cognition for Technical Systems, Munich, 2008.
- [57] El-Fotouh, Mohamed, Diepold, Klaus. Galois Substitution Counter Mode. Proc. Of the 12th IEEE International EDOC Conference (EDOC 2008), Munich, 2008.
- [58] El-Fotouh, Mohamed, Diepold, Klaus. Dynamic Substitution Model, 9/2008, the Fourth International Conference on Information Assurance and Security (IAS08).
- [59] El-Fotouh, Mohamed, Diepold, Klaus. A New Narrow Block Mode of Operations for Disk Encryption. 9/2008, The Fourth International Conference on Information Assurance and Security (IAS08).
- [60] Zia, Waqar, Diepold, Klaus. Complexity Aware Performance Enhancements for Mobile Video Communication Applications. 8/2008, International Conference on Wireless Networks 2008.
- [61] El-Fotouh, Mohamed, Diepold, Klaus. The Substitution Cipher Chaining Mode. 7/2008, SECRIPT 2008.
- [62] El-Fotouh, Mohamed, Diepold, Klaus. A Fast Encryption Scheme for Networks Applications. 7/2008, SECRIPT 2008.
- [63] Diepold, Klaus, Sensor Subspace Fusion and Parallel Sum of Projectors. 7/2008, Mathematical Theory of Networks and Systems (MTNS'08).
- [64] Keyrouz, Fahkredine, Kirchmaier, Ulrich, Diepold, Klaus. Three Dimensional Object Tracking Based on Audiovisual Fusion Using Particle Swarm Optimization. 7/2008, VDI International FUSION Conference
- [65] El-Fotouh, Mohamed, Diepold, Klaus. The Analysis of Windows Vista Disk Encryption Algorithm. 7/2008, The 22nd IFIP WG 11.3 Working Conference on Data and Applications Security.
- [66] Diepold, Klaus. Intersection of Subspaces and Network Models. 6/2008, Patrick Dewilde Workshop on Algebra, Networks, Signal Processing and System Theory. Waasenaar, June 2008.
- [67] Sarkis, Michel, Diepold, Klaus. Towards Real-time Stereo using Non-uniform Image Sampling and Sparse Dynamic Programming. 6/2008, International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT08).
- [68] Thuy, Michael, Goebel, Matthias, Rattei, Florian, Althoff, Matthias, Obermeier, Florian, Hawe, Simon, Nagel, Robert, Kraus, Sven, Wang, Cheng, Hecker, Falk, Russ, Martin, Schweitzer, Michael, Puente-Leon, Fernando, Färber, Georg, Buss, Martin, Diepold, Klaus, Eberspächer, Jörg, Heißing, Bernd, Wünsche, Hans-Joachim. Cognitive Automobile: Neue Konzepte und Ideen des Kognitive Automobile Neue Konzepte und Ideen des

Sonderforschungsbereiches/TR-28. 4/2008, Proceedings Aktive Sicherheit durch Fahrerassistenz, April, 2008.

- [69] Sarkis, Michel, Lorscheider, Oliver, Diepold, Klaus. Efficient Content Adaptive Mesh Representation of an Image using Binary Space Partitions and Singular Value Decomposition. 3/2008, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP).

2007

Journals

- [70] Keyrouz, Fahkredine, Diepold, Klaus. Binaural source localization and spatial audio reproduction for telepresence applications. Presence Journal. MIT Press. Vol. 16, No. 5, Pages 509-522, October 2007.
- [71] Keyrouz, Fahkredine, Diepold, Klaus. A Novel Biologically-Inspired Neural Network Solution for Robotic 3D 2007, Soft Computing Journal. Vol. 12, No. 7, pp. 721-729, Mai 2008.

Conference Proceedings

- [72] Keyrouz, Fahkredine, Diepold, Klaus, B.E Shady Keyrouz. Binaural Sound Tracking Using HRTFS. 12/2007, Book of Robot Motion and Control: Lecture Notes in Control and Information Sciences (LNCIS), Springer Verlag.
- [73] Zia, Waqar, Oelbaum, Tobias, Diepold, Klaus. A generic method to increase the prediction accuracy of visual quality metrics. 11/2007, Proc. Picture Coding Symposium.
- [74] Zia, Waqar, Oelbaum, Tobias, Diepold, Klaus. Subjective Evaluation of Error Control Strategies for Mobile Video Communication. 11/2007, Proc. Picture Coding Symposium.
- [75] Sarkis, Michel, Diepold, Klaus. A Fast Solution to the Approximation of 3D Scattered Point Data from Stereo Images using Triangular Meshes. 11/2007, IEEE-RAS International Conference on Humanoid Robots
- [76] Sarkis, Michel, Diepold, Klaus, Hüper, Knut. Pose Estimation of a Moving Humanoid Using Gauss-Newton Optimization on a Manifold. 11/2007, IEEE-RAS International Conference on Humanoid Robots.
- [77] Keyrouz, Fahkredine, Diepold, Klaus, B.E. Shady Keyrouz. Humanoid Monaural Sound Localization Using Unsupervised Clustering. 11/2007, IEEE International Conference on Signal Processing and Communications (ICSPC).
- [78] Sarkis, Michel, Senft, Christian, Diepold, Klaus. Partitioned Moving Least-Squares Modeling of an Automatic Zoom Lens Camera. 10/2007, International Conference on Control, Automation and Systems (ICCAS)
- [79] Keyrouz, Fahkredine, Diepold, Klaus. Robotic Binaural and Monaural Information Fusion Using Bayesian Networks. 10/2007, IEEE 5th International Symposium on Intelligent Signal Processing (WISP2007).
- [80] Oelbaum, Tobias, Diepold, Klaus. A Reduced Reference Video Quality Metric for AVC/H.264. 9/2007, European Signal Processing Conference.

- [81] Keyrouz, Fahkredine, Diepold, Klaus, Keyrouz, B.E. Shady. High Performance 3D Sound Localization for Surveillance Applications. 9/2007, IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS).
- [82] El-Fotouh, Mohamed, Diepold, Klaus. Statistical Testing for Disk Encryption Modes of Operations. 9/2007, Cryptology ePrint.
- [83] Zia, Waqar, Diepold, Klaus, Stockhammer, Thomas. Complexity Constrained Robust Video Transmission for Hand-Held Devices. 9/2007, IEEE International Conference on Image Processing (ICIP).
- [84] Sarkis, Michel, Senft, Christian, Diepold, Klaus. Modeling The Variation of the Intrinsic Parameters of an Automatic Zoom Camera System Using Moving Least-Squares. 9/2007, IEEE Conference on Automation Science and Engineering (CASE).
- [85] Sarkis, Michel, Senft, Christian, Diepold, Klaus. A Novel Technique to Model The Variation of the Intrinsic Parameters of an Automatic Zoom Camera Using Adaptive Delaunay Meshes over Moving Least-Squares Surfaces. 9/2007, IEEE International Conference on Image Processing (ICIP).
- [86] Sarkis, Michel, Dörfler, Nikolas, Diepold, Klaus. Fast adaptive graph-cuts based stereo matching. 8/2007, Advanced Concepts for Intelligent Vision Systems (ACIVS).
- [87] Oelbaum, Tobias, Diepold, Klaus. Building a Reduced Reference Video Quality Metric with very low Overhead using Multivariate Data Analysis. 7/2007, International Conference on Cybernetics and Information Technologies, Systems and Applications.
- [88] El-Fotouh, Mohamed, Diepold, Klaus. AES Cryptographic Modes of Operation for High-Speed Networks. 7/2007, International Conference on High Performance Computing, Networking and Communication Systems.
- [89] Keyrouz, Fahkredine, Diepold, Klaus, Lazarno-blasco, Francisco. Hierarchical Fuzzy Neural Networks for Robotic 3d Sound Source Sensing. 6/2007, IEEE International Symposium on Neural Networks (ISNN).
- [90] Keyrouz, Fahkredine, Diepold, Klaus, Keyrouz, B.E. Shady. Kalman Filtering and HRTFS for Humanoid Binaural Sound Tracking. 6/2007, IEEE 6th International Workshop on Robot Motion and Control.
- [91] Obermeier, Florian, Durkovic, Marko, Zwick, Michael, Diepold, Klaus. AVC Intraprediction Mode Decision Based on 4x4 Integer Transform. 6/2007, 2007 Workshop on Image Analysis for Multimedia Interactive Services.
- [92] Keyrouz, Fahkredine, Bou Saleh, B.E. Abdallah, Diepold, Klaus. A Novel Approach to Monaural Sound Localization. 5/2007, 122nd Audio Engineering Society (AES) Convention.
- [93] Sarkis, Michel, Diepold, Klaus, Hüper, Knut. A Fast and Robust Solution to the Five-Point Relative Pose Problem Using Gauss-Newton Optimization on a Manifold. 4/2007, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP).
- [94] Keyrouz, Fahkredine, Maier, Werner, Diepold, Klaus. Robotic Localization and Separation of Concurrent Sound Sources Using Self-Splitting Competitive Learning. 4/2007, First IEEE Symposium on Computational Intelligence in Image and Signal Processing (CIISP).

- [95] Keyrouz, Fahkredine, Maier, Werner, Diepold, Klaus. Robotic binaural Localization and Separation of More Than Two Concurrent Sound Sources. 2007, IEEE International Symposium on Signal Processing and its Applications (ISSPA).
- [96] Keyrouz, Fahkredine, Diepold, Klaus. Self-Splitting Competitive Learning for Binaural Sound Localization and Separation in Telerobotics. 2007, International Journal of Information Technology and Intelligent Computing (ITIC), IEEE Computational Intelligence Society.

Other

- [97] El-Fotouh, Mohamed, Diepold, Klaus. Distributed Computing: Windows and Linux. 11/2007, Dr.Dobb's Journal.
- [98] El-Fotouh, Mohamed, Diepold, Klaus. Inside the Windows Vista Disk Encryption Algorithm. 10/2007, Dr.Dobb's Journal.

2006

Conference Proceedings

- [99] Keyrouz, Fahkredine, Diepold, Klaus, Dewilde, Patrick. Robust 3D Robotic Sound Localization Using State-Space HRTF Inversion. 12/2006, IEEE International Conference on Robotics and Biomimetics (ROBIO).
- [100] Keyrouz, Fahkredine, Maier, Werner, Diepold, Klaus. A Novel Humanoid Binaural 3D Sound Localization and Separation Algorithm. 12/2006, IEEE-RAS International Conference on Humanoid Robots.
- [101] Sarkis, Michel, Diepold, Klaus. A Semi-automatic 3D Reconstruction Algorithm for Telepresence. 11/2006, International Symposium on Visual Computing (ISVC).
- [102] Keyrouz, Fahkredine, Diepold, Klaus. A Rational HRTF Interpolation Approach For Fast Rendering of Moving Sound. 11/2006, IEEE Digital Signal Processing (DSP) Workshop.
- [103] Keyrouz, Fahkredine, Diepold, Klaus. An Enhanced Binaural 3D Sound Localization Algorithm. 11/2006, IEEE International Symposium on Signal Processing and Inf. Technology (ISSPIT)
- [104] Sarkis, Michel, Diepold, Klaus. A 3D reconstruction algorithm for telepresence. 10/2006, The Second Workshop on Human Centered Robotic Systems (HCRS).
- [105] Sarkis, Michel, Dawy, Zaher, Obermeier, Florian, Diepold, Klaus. Automatic Model-Order Selection for PCA. 10/2006, IEEE International Conference on Image Processing (ICIP).
- [106] Keyrouz, Fahkredine, Diepold, Klaus. Robotic Sound Detection: A Novel Human-Based Approach. 10/2006, 2nd International Workshop on Human-Centered Robotic Systems (HCRS'06).
- [107] Durkovic, Marko, Zwick, Michael, Obermeier, Florian, Diepold, Klaus. Performance of Optical Flow Techniques on Graphics Hardware. 7/2006, 2006 IEEE International Conference on Multimedia and Expo.
- [108] Keyrouz, Fahkredine, Diepold, Klaus. Efficient State-Space Rational Interpolation of HRTFs. 6/2006, Audio Engineering Society (AES) 28th International Conference.

- [109] Sarkis, Michel, Diepold, Klaus, Westad, Frank. A New Algorithm for Gene Mapping: Application of Partial Least Squares Regression with Cross Model Validation. 5/2006, IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS).
- [110] Keyrouz, Fahkredine, Diepold, Klaus. A New Method for Binaural 3-D Localization Based on HRTFs. 2006, IEEE International Conference on Acoustic, Speech, and Signal Processing (ICASSP).

Other

- [111] Pramateftakis, Michael, Diepold, Klaus. Open Standards – A Cure For Digital Rights Management ? In: Kern, Eva-Maria, Hegering, Heinz-Gerd, Brügge, Bernd (Editors), Managing Development and Application of Digital Technologies: Research Insights in the Munich Center for Digital Technology and Management. Springer Verlag, 2006.

2005

Journals

- [112] Diepold, Klaus, Pereira, Fernando, Chang, Wo. MPEG-A: Multimedia Application Formats, IEEE MultiMedia, vol. 12, no. 4, pp. 34-41, Oct.-Dec. 2005.

Conference Proceedings

- [113] Obermeier, Florian, Diepold, Klaus. Semantic interpretation of video subspaces in the motion domain. 11/2005, Proceedings of 2nd European Workshop on the Integration of Knowledge, Semantic and Digital Media Technologies
- [114] Diepold, Klaus, Obermeier, Florian. Multi-Domain Subspace Representation of Image Sequences, 4/2005, 2005 Workshop on Image Analysis for Multimedia Interactive Services.

2004

Conference Proceedings

- [115] Dewilde, Patrick, Diepold, Klaus, Walter Bamberger. Optic flow computation and time-varying system theory. 7/2004, Proceedings of the International Symposium on Mathematical Theory of Networks and Systems (MTNS).
- [116] Dewilde, Patrick, Diepold, Klaus, Walter Bamberger. A semi-separable approach to a tridiagonal hierarchy of matrices with applications to image analysis. 7/2004, Proceedings of the International Symposium on Mathematical Theory of Networks and Systems (MTNS).
- [117] Pramateftakis, Michael, Oelbaum, Tobias, Diepold, Klaus. Authentication of MPEG-4-based surveillance video. 2004, ICIP 2004.

Other

- [118] Diepold, Klaus, Oelbaum, Tobias. MPEG-4 AVC: Codec mit Chancen bei HDTV und HD-DVD. 12/2004, Digital Productions.
- [119] Diepold, Klaus, Möritz, Sebastian: Understanding MPEG-4. Business and Technology Insights. Focal Press, 2004.

1989 - 2003

Journals

- [120] F. Westad, Diepold, Klaus, H. Martens. QR-PLSR: Reduced-rank regression for high-speed hardware implementation. *Journal of Chemometrics*, Vol. 10, 439-451, 1996.
- [121] Diepold, Klaus, Pauli, Rainer. Schur parametrization of symmetric indefinite matrices based on a network theoretic model. *Archiv für Elektronik und Übertragungstechnik (AEÜ)*, 45(6):375-385, 1991.

Conference Proceedings

- [122] Diepold, Klaus, Pauli, Rainer. Actions of Noncompact Groups and Algorithm Design: A Case Study. *Proceedings Intern. Conference on Acoustics, Speech, and Signal Processing*, München, 1997, pages 47-50.
- [123] Diepold, Klaus, Pauli, Rainer. Gruppenmodelle in der Netzwerktheorie. In: W. Mathis, P. Noll (Herausgeber): *Neue Anwendungen theoretischer Konzepte in der Elektrotechnik. 2. ITG--Diskussionssitzung, Gedenksitzung zum 50. Todestag von Wilhelm Cauer*. VDE--Verlag, 1996, pages 95--104.
- [124] Diepold, Klaus, Pauli, Rainer. A recursive algorithm for lossless embedding of non-passive systems. In P. Dewilde, M. A. Kaashoek, and M. Verhaegen, editors, *Challenges of a Generalized System Theory*, pages 209-220, North-Holland, 1993.
- [125] Diepold, Klaus, R. Pauli. Embedding of non-contractive systems in lossless realizations. *Proceedings of International Symposium on Circuits and Systems*, Chicago, IEEE, 1993.
- [126] Diepold, Klaus, Pauli, Rainer. Recursive lossless embedding of arbitrary matrices. *Proceedings of the European Conference on Circuit Theory and Design*, part 1, Davos, pages 191-196, Elsevier Science Publishers, 1993.
- [127] Diepold, Klaus, R. Pauli. Schur parametrization of symmetric matrices with any rank profile. *Proceedings International Conference on Acoustics, Speech, and Signal Processing*, San Francisco, pages V.269-272, IEEE, 1992.
- [128] Diepold, Klaus, R. Pauli, Nossek, Josef A.. Recursive parametrization of matrices by lossless inverse scattering. In H. Kimura and S. Kodama editors, *Recent Advances in Mathematical Theory of Systems, Control, Networks, and Signal Processing*, pages 507-512, MITA Press, 1991.
- [129] Diepold, Klaus, Pauli, Rainer. LIS parametrization of matrices. In M. Verhaegen, editor, *Advanced Algorithms and their Realization*, 1991.
- [130] Diepold, Klaus, Pauli, Rainer. Schur parametrization of symmetric indefinite matrices. *Proceedings Intern. Conference on Acoustics, Speech, and Signal Processing*, Toronto, pages 3201--3404, IEEE, 1991.
- [131] Diepold, Klaus, Pauli, Rainer, Nossek, Josef A. A Schur-type algorithm for the triangular factorization of positive semidefinite matrices. In E. Deprettere and A.-J. Van der Veen, editors, *Algorithms and Parallel VLSI Architectures*, volume B, pages 33-42. Elsevier Science Publishers, 1991.
- [132] Diepold, Klaus, F. Hohnheiser, Pauli, Rainer. A VLSI processor array for multidimensional J-orthogonal transformations. *Proceedings of International Symposium on Signals, Systems and Electronics*, Erlangen, pages 799--802, URSI, 1989.

- [133] Diepold, Klaus, F.Hohnheiser, Pauli, Rainer. A physical systems approach to VLSI arrays. Proceedings International Conference on Circuits and Systems, Nanjing, pages 99--102, IEEE, 1989.

Other

- [134] Diepold, Klaus, Grzeszczuck, Radek, Pandic, Igor, Petajan, Eric, Sodagar, Iraj, Spierer, JC, Taubin, Gabriel: MPEG-4: Next Generation Standard for Interactive Media. Course Notes 11. 29th International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH), San Antonio, TX, August 2002.
- [135] Diepold, Klaus, I.Pandic, JC Spierer: MPEG-4 for interactive TV/Video Applications. Digital Behaviour, ReedExpo, Cologne, Germany, June 2002.
- [136] Diepold, Klaus. Ein abstraktes Kaskadenmodell zur Schur-Parameterisierung von Matrizen. Dissertation, Fakultät für Elektrotechnik und Informationstechnik, Technische Universität München, 1992.
- [137] Diepold, Klaus, Paul, Steffen. Real-time solution of systems of linear equations. Course Notes for EURASIP Short-Course on Adaptive Filtering: Methods and Applications. March 1991.
- [138] Diepold, Klaus, Pauli, Rainer. Triangular factorization of symmetric non-negative definite matrices by J-orthogonal transformations. Technischer Bericht TUM-LNS-TR-90-3, Institut für Netzwerktheorie und Schaltungstechnik, Technische Universität München, 1990.
- [139] Diepold, Klaus, Pauli, Rainer. Die algebraischen Grundlagen der Kaskadensynthese linearer Systeme. Technischer Bericht R-100/26, Institut Netzwerktheorie und Schaltungstechnik, Technische Universität München, 1987.

Patent Applications

- [140] Diepold, Klaus, Gieß, Max, Hanika, Helmut, Knobloch, Christof, Martens, Harald, Müller, Klaus, Reberg, Jan Otto, Röttgermann, Clemens, Wittkop, Markus, Zeitler, Thomas. Method and Apparatus for Compressing Video Sequences. Pending PCT Patent Application. July 1997. EU 98928295.9, PCT/EP 98/02950, WO99/07157.
- [141] Diepold, Klaus, Edelson, Steven. A Method and Apparatus for Generation of MPEG-type Motion Vectors for Frame Interpolation and Compression, Provisional US Patent Application, 26/03/2001.
- [142] Diepold, Klaus, Edelson, Steven, Miller, Craig. Surveillance Video Enhancement. Provisional US Patent Application 06/11/2000
- [143] Diepold, Klaus, Edelson, Steven. Motion Picture Enhancing System, 14/12/1999, US Patent Application, US 09/459,988
- [144] Diepold, Klaus, Edelson, Steven. Slow Motion System, 14/12/1999, US Patent Application, US 09/459,987
- [145] Diepold, Klaus, Edelson, Steven. A method and Apparatus for Filling Temporal Gaps in Video, Provisional US Patent Application 02/10/2000

- [146] Diepold, Klaus. Method for the Graphical Representation of Motion in Video in Still Images; US Patent Application, 10/10/2000, US 60/238,459
- [147] Diepold, Klaus, Edelson, Steven, Wonneberger, Sigfried. Video Data Reduction by Selected Frame Elimination. US Patent Application, 26/03/2001.
- [148] Diepold, Klaus, Knobloch, Christof F.Hohnheiser, Franz. Method and Apparatus for creating motion blur effects in digital video. Provisional US Patent Application, May 2001.
- [149] Diepold, Klaus, Edelson, Steven. Multiplexed MPEG Compression. PCT Patent Application, May 2002.