Stanford



Bernd Girod

Robert L. and Audrey S. Hancock Professor in the School of Engineering, Emeritus

Electrical Engineering

Curriculum Vitae available Online

CONTACT INFORMATION

- **Alternate Contact**

  Kelly Yilmaz

  Email yilmaz@stanford.edu

  Tel 650 723 4539

Bio

BIO

Bernd Girod is the Hancock Professor of Electrical Engineering in the Information Systems Laboratory of Stanford University. Before joining Stanford in 1999, he was a Chaired Professor in the Electrical Engineering Department of the University of Erlangen-Nuremberg. His research interests are in the area of image, video, and multimedia systems. He has published over 600 conference and journal papers and 6 books, receiving the EURASIP Signal Processing Best Paper Award in 2002, the IEEE Multimedia Communication Best Paper Award in 2007, the EURASIP Image Communication Best Paper Award in 2008, the EURASIP Signal Processing Most Cited Paper Award in 2008, as well as the EURASIP Technical Achievement Award in 2004 and the Technical Achievement Award of the IEEE Signal Processing Society in 2011. As an entrepreneur, Professor Girod has been involved in several startup ventures, among them Polycom, Vivo Software, 8x8, and RealNetworks. He received an Engineering Doctorate from University of Hannover, Germany, and an M.S. Degree from Georgia Institute of Technology. Prof. Girod is a Fellow of the IEEE, a EURASIP Fellow, a member of the National Academy of Engineering and a member of the German National Academy of Sciences (Leopoldina).

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Electrical Engineering

ADMINISTRATIVE APPOINTMENTS

- Faculty Director, Stanford Center for Image Systems Engineering (SCIEN), (2000- present)
- Director, Max Planck Center for Visual Computing and Communication, (2003- present)
- Director, David and Helen Gurley Brown Institute for Media Innovation, (2012-2015)
- Senior Associate Dean for Online Learning and Professional Development, School of Engineering, (2012-2015)
- Senior Associate Dean at Large, School of Engineering, (2015-2016)

HONORS AND AWARDS

- Fellow, IEEE (1998)
- Signal Processing Best Paper Award, EURASIP (2002)
- Technical Achievement Award, EURASIP (2004)

- Multimedia Communication Best Paper Award, IEEE (2007)
- Induction, German National Academy of Sciences (Leopoldina) (2007)
- Fellow, European Association of Signal Processing (2008)
- Image Communication Best Paper Award, EURASIP (2008)
- Most Cited Paper Award, EURASIP (2009)
- Technical Achievement Award, IEEE Signal Processing Society (2011)
- Election, National Academy of Engineering (2015)

PROFESSIONAL EDUCATION

- Engineering Doctorate, University of Hannover, Germany , Electrical Engineering (1987)
- Master of Science, Georgia Institute of Technology , Electrical Engineering (1980)

LINKS

- https://web.stanford.edu/~bgirod/: https://web.stanford.edu/~bgirod/
- Google Scholar Profile: http://scholar.google.com/citations?hl=en&user=lEGGMI0AAAAJ&view_op=list_works

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Girod's Image, Video, and Multimedia Systems Group explores algorithms and architectures for delivery, storage, retrieval, processing, and interactive use of multimedia signals and data, including audio and video, images, graphics and text, often in combination. They are currently most interested in mobile visual search, mobile augmented reality, and personalized media. Besides theoretical analyses and systematic experiments to study the underlying principles, they build real-time test beds and prototypes to validate and demonstrate their ideas.

PROJECTS

- Max Planck Center for Visual Computing and Communication

Teaching

COURSES

2025-26

- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

2024-25

- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

2023-24

- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

STANFORD ADVISEES

Master's Program Advisor

Daiki Nakajima, Christina Tsangouri

Publications

PUBLICATIONS

- **Real-World Virtual Reality With Head-Motion Parallax.** *IEEE computer graphics and applications*
  Thatte, J., Girod, B.
  2021; 41 (4): 29-39
- **Gaussian Lifting for Fast Bilateral and Nonlocal Means Filtering** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Young, S. I., Girod, B., Taubman, D.
  2020; 29: 6082–95
- **Fast Optical Flow Extraction From Compressed Video** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Young, S. I., Girod, B., Taubman, D.
  2020; 29: 6409–21
- **Non-line-of-sight Surface Reconstruction Using the Directional Light-cone Transform**
  Young, S., Lindell, D. B., Girod, B., Taubman, D., Wetzstein, G., IEEE
  IEEE.2020: 1404–13
- **LiFF: Light Field Features in Scale and Depth**
  Dansereau, D. G., Girod, B., Wetzstein, G., IEEE Comp Soc
  IEEE.2019: 8034–43
- **Solving Vision Problems via Filtering**
  Young, S. I., Naman, A. T., Girod, B., Taubman, D., IEEE
  IEEE.2019: 5591–5600
- **OPTIMIZING THE BIT ALLOCATION FOR COMPRESSION OF WEIGHTS AND ACTIVATIONS OF DEEP NEURAL NETWORKS**
  Zhe, W., Lin, J., Chandrasekhar, V., Girod, B., IEEE
  IEEE.2019: 3826–30
- **Recurrent Neural Networks for Person Re-identification Revisited**
  Boin, J., Araujo, A., Girod, B., IEEE
  IEEE.2019: 147–52
- **Large-Scale Video Retrieval Using Image Queries** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Araujo, A., Girod, B.
  2018; 28 (6): 1406–20
- **EFFECTIVE FISHER VECTOR AGGREGATION FOR 3D OBJECT RETRIEVAL**
  Boin, J., Araujo, A., Ballan, L., Girod, B., IEEE
  IEEE.2017: 1747–51
- **Overview of the MPEG-CDVS Standard** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Duan, L., Chandrasekhar, V., Chen, J., Lin, J., Wang, Z., Huang, T., Girod, B., Gao, W.
  2016; 25 (1): 179-194
- **A Hybrid Mobile Visual Search System With Compact Global Signatures** *IEEE TRANSACTIONS ON MULTIMEDIA*
  Chen, D. M., Girod, B.
  2015; 17 (7): 1019-1030
- **The Hidden Sides of Names-Face Modeling with First Name Attributes** *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE*
  Chen, H., Gallagher, A. C., Girod, B.
  2014; 36 (9): 1860-1873
- **Interframe coding of feature descriptors for mobile augmented reality.** *IEEE transactions on image processing*
  Makar, M., Chandrasekhar, V., Tsai, S. S., Chen, D., Girod, B.

2014; 23 (8): 3352-3367

- **Memory-Efficient Image Databases for Mobile Visual Search** *IEEE MULTIMEDIA*
  Chen, D. M., Girod, B.
  2014; 21 (1): 14-23
- **Residual enhanced visual vector as a compact signature for mobile visual search** *SIGNAL PROCESSING*
  Chen, D., Tsai, S., Chandrasekhar, V., Takacs, G., Vedantham, R., Grzeszczuk, R., Girod, B.
  2013; 93 (8): 2316-2327
- **Fast Computation of Rotation-Invariant Image Features by an Approximate Radial Gradient Transform** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Takacs, G., Chandrasekhar, V., Tsai, S. S., Chen, D., Grzeszczuk, R., Girod, B.
  2013; 22 (8): 2970-2982
- **Rotation-invariant fast features for large-scale recognition and real-time tracking** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Takacs, G., Chandrasekhar, V., Tsai, S., Chen, D., Grzeszczuk, R., Girod, B.
  2013; 28 (4): 334-344
- **Analysis of visual similarity in news videos with robust and memory-efficient image retrieval**
  Chen, D., Vajda, P., Tsai, S., Daneshi, M., Yu, M., Chen, H., Girod, B.
  2013
- **What's in a Name? First Names as Facial Attributes** *26th IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*
  Chen, H., Gallagher, A. C., Girod, B.
  IEEE.2013: 3366–3373
- **EIGENNEWS: GENERATING AND DELIVERING PERSONALIZED NEWS VIDEO** *IEEE International Conference on Multimedia and Expo Workshops (ICMEW)*
  Daneshi, M., Vajda, P., Chen, D. M., Tsai, S. S., Yu, M. C., Araujo, A. F., Chen, H., Girod, B.
  IEEE.2013
- **ANALYSIS OF VISUAL SIMILARITY IN NEWS VIDEOS WITH ROBUST AND MEMORY-EFFICIENT IMAGE RETRIEVAL** *IEEE International Conference on Multimedia and Expo Workshops (ICMEW)*
  Chen, D. M., Vajda, P., Tsai, S. S., Daneshi, M., Yu, M. C., Chen, H., Araujo, A. F., Girod, B.
  IEEE.2013
- **What's in a Name: First Names as Facial Attributes**
  Chen, H., Gallagher, A., Girod, B.
  2013
- **Interframe coding of canonical patches for low bit-rate mobile augmented reality** *International Journal of Semantic Computing.*
  Makar, M., Tsai, S., Chandrasekhar, V., Chen, D., Girod, B.
  2013; 7 (1)
- **EigenNews: A personalized news video delivery platform**
  Yu, M., Vajda, P., Chen, D., Daneshi, M., Tsai, S., Araujo, A., Girod, B.
  2013
- **EigenNews: Generating and delivering personalized news videos**
  Daneshi, M., Vajda, P., Chen, D., Tsai, S., Yu, M., Chen, H., Girod, B.
  2013
- **Adaptive Distributed Source Coding** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Varodayan, D., Lin, Y., Girod, B.
  2012; 21 (5): 2630-2640
- **Robust mobile video streaming in a peer-to-peer system** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Noh, J., Girod, B.
  2012; 27 (5): 532-544

- **IPTV Multicast with Peer-Assisted Lossy Error Control** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Li, Z., Zhu, X., Begen, A. C., Girod, B.
  2012; 22 (3): 434-449
- **Compressed Histogram of Gradients: A Low-Bitrate Descriptor** *INTERNATIONAL JOURNAL OF COMPUTER VISION*
  Chandrasekhar, V., Takacs, G., Chen, D. M., Tsai, S. S., Reznik, Y., Grzeszczuk, R., Girod, B.
  2012; 96 (3): 384-399
- **Visual Text Features for Image Matching** *14th IEEE International Symposium on Multimedia (ISM)*
  Tsai, S. S., Chen, H., Chen, D., Parameswaran, V., Grzeszczuk, R., Girod, B.
  IEEE.2012: 408–412
- **Describing Clothing by Semantic Attributes** *12th European Conference on Computer Vision (ECCV)*
  Chen, H., Gallagher, A., Girod, B.
  SPRINGER-VERLAG BERLIN.2012: 609–623
- **Design of a Text Detection System via Hypothesis Generation and Verification**
  Tsai, Sam, S., Parameswarany, V., Berclazy, J., Vedanthamy, R., Grzeszczuk, R., Girod, B.
  2012
- **Time-Shifted Streaming in a Tree-Based Peer-to-Peer System** *Journal of Communications*
  Noh, J., Girod, B.
  2012; 7 (3): 202-212
- **Rotation invariant fast features for large-scale recognition**
  Takacs, G., Chandrasekhar, V., Chen, D., Tsai, S., Grzeszczuk, R., Girod, B.
  2012
- **Describing Clothing by Semantic Attributes**
  Chen, H., Gallagher, A., Girod, B.
  2012
- **The Stanford/Technicolor/Fraunhofer HHI Video Semantic Indexing System**
  Araujo, A., F. de, Silveira, F., Lakshman, H., Zepeda, J., Sheth, A., Perez, P., Girod, B.
  2012
- **Rotation-Invariant Fast Features for Large-Scale Recognition** *Conference on Applications of Digital Image Processing XXXV*
  Takacs, G., Chandrasekhar, V., Tsai, S., Chen, D., Grzeszczuk, R., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2012
- **GRADIENT PRESERVING QUANTIZATION** *19th IEEE International Conference on Image Processing (ICIP)*
  Makar, M., Lakshman, H., Chandrasekhar, V., Girod, B.
  IEEE.2012: 2505–2508
- **Improved Coding for Image Feature Location Information** *Conference on Applications of Digital Image Processing XXXV*
  Tsai, S. S., Chen, D., Takacs, G., Chandrasekhar, V., Makar, M., Grzeszczuk, R., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2012
- **Interframe Coding of Canonical Patches for Mobile Augmented Reality** *14th IEEE International Symposium on Multimedia (ISM)*
  Makar, M., Tsai, S. S., Chandrasekhar, V., Chen, D., Girod, B.
  IEEE.2012: 50–57
- **Image Authentication Using Distributed Source Coding** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Lin, Y., Varodayan, D., Girod, B.
  2012; 21 (1): 273-283
- **Distributed Media-Aware Rate Allocation for Video Multicast over Wireless Networks** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Zhu, X., Schierl, T., Wiegand, T., Girod, B.
  2011; 21 (9): 1181-1192

- **Mobile Visual Search: Architectures, Technologies, and the Emerging MPEG Standard** *IEEE MULTIMEDIA*
  Girod, B., Chandrasekhar, V., Grzeszczuk, R., Reznik, Y. A.
  2011; 18 (3): 86-94
- **Mobile Visual Search [Linking the virtual and physical worlds]** *IEEE SIGNAL PROCESSING MAGAZINE*
  Girod, B., Chandrasekhar, V., Chen, D. M., Cheung, N., Grzeszczuk, R., Reznik, Y., Takacs, G., Tsai, S. S., Vedantham, R.
  2011; 28 (4): 61-76
- **A unified framework for distributed video rate allocation over wireless networks** *AD HOC NETWORKS*
  Zhu, X., Girod, B.
  2011; 9 (4): 608-622
- **Spatial-Random-Access-Enabled Video Coding for Interactive Virtual Pan/Tilt/Zoom Functionality** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Mavlankar, A., Girod, B.
  2011; 21 (5): 577-588
- **MOBILE AUGMENTED REALITY FOR BOOKS ON A SHELF** *IEEE International Conference on Multimedia and Expo (ICME)*
  Chen, D., Tsai, S., Hsu, C., Singh, J. P., Girod, B.
  IEEE.2011
- **ROBUST TEXT DETECTION IN NATURAL IMAGES WITH EDGE-ENHANCED MAXIMALLY STABLE EXTREMAL REGIONS** *18th IEEE International Conference on Image Processing (ICIP)*
  Chen, H., Tsai, S. S., Schroth, G., Chen, D. M., Grzeszczuk, R., Girod, B.
  IEEE.2011
- **Compressing a Set of CHoG Features** *Conference on Applications of Digital Image Processing XXXIV*
  Chandrasekhar, V., Tsai, S. S., Reznik, Y., Takacs, G., Chen, D. M., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2011
- **Mobile Visual Search Using Image and Text Features**
  Tsai, S., Chen, H., Chen, D., Vedantham, R., Grzeszczuk, R., Girod, B.
  2011
- **The Stanford Mobile Visual Search Dataset**
  Chandrasekhar, V., Chen, D., Tsai, S., Cheung, N., Chen, H., Takacs, G., Girod, B.
  2011
- **Delay-optimal burst erasure codes for parallel links**
  Li, Z., Begen, A., Girod, B.
  2011
- **Synchronization of Presentation Slides and Lecture Videos Using Bit Rate Sequences**
  Schroth, G., Cheung, N., Steinbach, Eckehard., Girod, B.
  2011
- **Correcting Erasure Bursts with Minimum Decoding Delay**
  Li, Z., Khisti, A., Girod, B.
  2011
- **ClassX – An Open Source Interactive Lecture Streaming System** *ACM Multimedia (MM'11), Scottsdale, Arizona, USA*
  Halawa, S., Pang, D., Cheung, N., Girod, B.
  2011
- **Mobile Interactive Region-of-Interest Video Streaming with Crowd-Driven Prefetching** *International ACM Workshop on Interactive Multimedia on Mobile and Portable Devices, ACM Multimedia (MM'11) Scottsdale, AZ, USA*
  Pang, D., Halawa, S., Cheung, N., Girod, B.
  2011
- **Combining Image and Text Features: a Hybrid Approach to Mobile Book Spine Recognition** *ACM Multimedia (MM'11), Scottsdale, AZ*

Tsai, S., Chen, D., Chen, H., Hsu, C. H., Kim, K. H., Singh, Jatinder, p., Girod, B.
2011

- **Multimedia Technology for Next Generation Online Lecture Video** *IEEE COMSOC MMTC E-Letter*
  Cheung, N., Halawa, S., Pang, D., Girod, B.
  2011; 6 (1)
- **Compressed Histogram of Gradients: A Low Bitrate Descriptor** *International Journal on Computer Vision*
  Chandrasekhar, V., Takacs, G., Chen, D., Tsai, S., Reznik, Y., Grzeszczuk, R., Girod, B.
  2011; 94 (5)
- **ClassX Mobile - Region-of-Interest Video Streaming to Mobile Devices with Multi-Touch Interaction** *ACM Multimedia (MM'11) Scottsdale, AZ*
  Pang, D., Halawa, S., Cheung, N., Girod, B.
  2011
- **Mobile Visual Search** *IEEE Signal Processing Magazine*
  Girod, B., Chandrasekhar, V., Chen, D., M., Cheung, N., M., Grzeszczuk, R., Reznik, Y.
  2011; 28 (4): 61-76
- **SYNCHRONIZATION OF PRESENTATION SLIDES AND LECTURE VIDEOS USING BIT RATE SEQUENCES** *18th IEEE International Conference on Image Processing (ICIP)*
  Schroth, G., Cheung, N., Steinbach, E., Girod, B.
  IEEE.2011: 925–928
- **Compressing Feature Sets with Digital Search Trees** *IEEE International Conference on Computer Vision (ICCV)*
  Chandrasekhar, V., Reznik, Y., Takacs, G., Chen, D. M., Tsai, S. S., Grzeszczuk, R., Girod, B.
  IEEE.2011
- **City-Scale Landmark Identification on Mobile Devices** *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*
  Chen, D. M., Baatz, G., Koeser, K., Tsai, S. S., Vedantham, R., Pylvaenaeinen, T., Roimela, K., Chen, X., Bach, J., Pollefeys, M., Girod, B., Grzeszczuk, R.
  IEEE.2011: 737–744
- **MOBILE VISUAL SEARCH ON PRINTED DOCUMENTS USING TEXT AND LOW BIT-RATE FEATURES** *18th IEEE International Conference on Image Processing (ICIP)*
  Tsai, S. S., Chen, H., Chen, D., Schroth, G., Grzeszczuk, R., Girod, B.
  IEEE.2011
- **Compression of VQM Features for Low Bit-Rate Video Quality Monitoring** *13th IEEE International Workshop on Multimedia Signal Processing (MMSP)*
  Makar, M., Lin, Y., de Araujo, A. F., Girod, B.
  IEEE.2011
- **QUALITY-CONTROLLED VIEW INTERPOLATION FOR MULTIVIEW VIDEO** *18th IEEE International Conference on Image Processing (ICIP)*
  Makar, M., Lin, Y., Cheung, N., Pang, D., Girod, B.
  IEEE.2011: 1805–1808
- **ROBUST TEXT DETECTION IN NATURAL IMAGES WITH EDGE-ENHANCED MAXIMALLY STABLE EXTREMAL REGIONS** *18th IEEE International Conference on Image Processing (ICIP)*
  Chen, H., Tsai, S. S., Schroth, G., Chen, D. M., Grzeszczuk, R., Girod, B.
  IEEE.2011
- **Compressing a Set of CHoG Features** *Conference on Applications of Digital Image Processing XXXIV*
  Chandrasekhar, V., Tsai, S. S., Reznik, Y., Takacs, G., Chen, D. M., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2011
- **Distributed Media-Aware Rate Allocation for Wireless Video Streaming** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Zhu, X., Girod, B.
  2010; 20 (11): 1462-1474

- **Direction-Adaptive Partitioned Block Transform for Color Image Coding** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Chang, C., Makar, M., Tsai, S. S., Girod, B.
  2010; 19 (7): 1740-1755
- **Quality-Controlled Motion-Compensated Interpolation** *44th Asilomar Conference on Signals, Systems and Computers*
  Makar, M., Pang, D., Lin, Y., Girod, B.
  IEEE.2010: 865–869
- **Video Streaming with Interactive Pan/Tilt/Zoom** *High-Quality Visual Experience: Creation, Processing and Interactivity of High-Resolution and High-Dimensional Video Signals*
  Mavlankar, A., Girod, B.
  edited by Mrak, M., Grgic, M., Kunt, M.
  Springe.2010: 1
- **On Media Data Structures for Interactive Streaming in Immersive Applications**
  Cheung, G., Ortega, A., Cheung, N., Girod, B.
  2010
- **Inverted Index Compression for Scalable Image Matching**
  Chen, David, M., Tsai, Sam, S., Chandrasekhar, V., Takacs, G., Vedantham, R., Grzeszczuk, R., Girod, B.
  2010
- **Quantization Schemes for Low Bitrate Compressed Histogram of Gradients Descriptors**
  Chandrasekhar, V., Reznik, Y., Takacs, G., Chen, D., Tsai, S., Grzeszczuk, R., Girod, B.
  2010
- **IPTV Multicast with Peer-Assisted Lossy Error Control**
  Li, Z., Zhu, X., Begen, Ali, C., Girod, B.
  2010
- **Survey of SIFT Compression Schemes**
  Chandrasekhar, V., Makar, M., Takacs, G., Chen, David, M., Tsai, Sam, S., Cheung, N., Girod, B.
  2010
- **Low Latency Image Retrieval with Progressive Transmission of CHoG Descriptors**
  Chandrasekhar, V., Tsai, Sam, S., Takacs, G., Chen, David, M., Cheung, N., Reznik, Y., Girod, B.
  2010
- **Restoration of Out-of-focus Lecture Video by Automatic Slide Matching**
  Cheung, N., Chen, David, M., Chandrasekhar, Vijay, R., Tsai, S., Takacs, G., Halawa, S., Girod, B.
  2010
- **Accelerated IPTV Channel Change with Transcoded Unicast Bursting**
  Li, Z., Begen, Ali, C., Zhu, X., Girod, B.
  2010
- **Forward Error Protection for Low-Delay Packet Video**
  Li, Z., Khisti, A., Girod, B.
  2010
- **Mobile Product Recognition**
  Tsai, S., Chen, D., Chandrasekhar, V., Takacs, G., Cheung, N., Vedantham, R., Girod, B.
  2010
- **Building Book Inventories using Smartphones**
  Chen, David, M., Tsai, S., Hsu, C., Kim, K. h., Singh, J. P., Girod, B.
  2010
- **An Interactive Region-of-Interest Video Streaming System for Online Lecture Viewing**
  Mavlankar, A., Agrawal, P., Pang, D., Halawa, S., Cheung, N., Girod, B.

2010

- **FAST GEOMETRIC RE-RANKING FOR IMAGE-BASED RETRIEVAL** *IEEE International Conference on Image Processing*
  Tsai, S. S., Chen, D., Takacs, G., Chandrasekhar, V., Vedantham, R., Grzeszczuk, R., Girod, B.
  IEEE.2010: 1029–1032
- **DYNAMIC SELECTION OF A FEATURE-RICH QUERY FRAME FOR MOBILE VIDEO RETRIEVAL** *IEEE International Conference on Image Processing*
  Chen, D., Cheung, N., Tsai, S., Chandrasekhar, V., Takacs, G., Vedantham, R., Grzeszczuk, R., Girod, B.
  IEEE.2010: 1017–1020
- **SIDE-INFORMATION-ADAPTIVE DISTRIBUTED SOURCE CODING** *IEEE International Conference on Image Processing*
  Varodayan, D., Girod, B.
  IEEE.2010: 3729–3732
- **COMPARISON OF LOCAL FEATURE DESCRIPTORS FOR MOBILE VISUAL SEARCH** *IEEE International Conference on Image Processing*
  Chandrasekhar, V., Chen, D. M., Lin, A., Takacs, G., Tsai, S. S., Cheung, N., Reznik, Y., Grzeszczuk, R., Girod, B.
  IEEE.2010: 3885–3888
- **Low-Cost Asset Tracking using Location-Aware Camera Phones** *Conference on Applications of Digital Image Processing XXXIII*
  Chen, D., Tsai, S., Kim, K., Hsu, C., Singh, J. P., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2010
- **REAL-TIME VIDEO STREAMING WITH INTERACTIVE REGION-OF-INTEREST** *IEEE International Conference on Image Processing*
  Makar, M., Mavlankar, A., Agrawal, P., Girod, B.
  IEEE.2010: 4437–4440
- **Unified Real-Time Tracking and Recognition with Rotation-Invariant Fast Features** *23rd IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*
  Takacs, G., Chandrasekhar, V., Tsai, S., Chen, D., Grzeszczuk, R., Girod, B.
  IEEE COMPUTER SOC.2010: 934–941
- **Permutable Descriptors for Orientation-Invariant Image Matching** *Conference on Applications of Digital Image Processing XXXIII*
  Takacs, G., Chandrasekhar, V., Chen, H., Chen, D., Tsai, S., Grzeszczuk, R., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2010
- **Fast Quantization and Matching of Histogram-Based Image Features** *Conference on Applications of Digital Image Processing XXXIII*
  Reznik, Y. A., Chandrasekhar, V., Takacs, G., Chen, D. M., Tsai, S. S., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2010
- **Distributed Rate Allocation Policies for Multihomed Video Streaming Over Heterogeneous Access Networks** *IEEE TRANSACTIONS ON MULTIMEDIA*
  Zhu, X., Agrawal, P., Singh, J. P., Alpcan, T., Girod, B.
  2009; 11 (4): 752-764
- **Systematic Lossy Error Protection of Video Signals (vol 18, pg 1347, 2008)** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Rane, S., Baccichet, P., Girod, B.
  2009; 19 (3): 452-452
- **DISTRIBUTED SOURCE CODING AUTHENTICATION OF IMAGES WITH AFFINE WARPING** *IEEE International Conference on Acoustics, Speech and Signal Processing*
  Lin, Y., Varodayan, D., Girod, B.
  IEEE.2009: 1481–1484
- **Streaming Mobile Augmented Reality on Mobile Phones** *8th IEEE International Symposium on Mixed and Augmented Reality*
  Chen, D. M., Tsai, S. S., Vedantham, R., Grzeszczuk, R., Girod, B.
  IEEE.2009: 181–182
- **DISTRIBUTED SOURCE CODING AUTHENTICATION OF IMAGES WITH CONTRAST AND BRIGHTNESS ADJUSTMENT AND AFFINE WARPING** *Picture Coding Symposium 2009*

Lin, Y., Varodayan, D., Girod, B.
IEEE.2009: 317–320

- **Location Coding for Mobile Image Retrieval**
  Tsai, Sam, S., Chen, D., Takacs, G., Chandrasekhar, V., Singh, Jatinder, P., Girod, B.
  2009
- **Streaming to Mobile Users in a Peer-to-Peer Network**
  Noh, J., Makar, M., Girod, B.
  2009
- **Peer-to-Peer Television, Ready for Prime Time?** *IEEE COMSOC MMTC E-Letter*
  Girod, B.
  2009; 4 (9): 8-10
- **Robust Image Retrieval using Multiview Scalable Vocabulary Trees**
  Chen, D., M., Tsai, S., S., Chandrasekhar, V., Takacs, G., Singh, J., P., Girod, B.
  2009
- **Image-Based Retrieval with a Camera-Phone**
  Tsai, Sam, S., David, M., Chen, Singh, Jatinder, P., Girod, B.
  2009
- **Low-Rate Image Retrieval with Tree Histogram Coding**
  Chandrasekhar, V., Chen, David, M., Li, Z., Takacs, G., Tsai, Sam, S., Grzeszczuk, R., Girod, B.
  2009
- **Video Quality Monitoring for Mobile Multicast Peers Using Distributed Source Coding**
  Lin, Y., Varodayan, D., Girod, B.
  2009
- **Peer-Assisted Packet Loss Repair for IPTV Video Multicast**
  Li, Z., Zhu, X., Begen, Ali, C., Girod, B.
  2009
- **Quantization for Distributed Source Coding** *Distributed Source Coding: Theory, Algorithms and Applications*
  Rebollo-Monedero, D., Girod, B.
  edited by Gaspar, M., Dragotti, P., L.
  Elsevier Inc..2009: 1
- **Authenticating Cropped and Resized Images Using Distributed Source Coding and Expectation Maximization**
  Lin, Y., Varodayan, D., Girod, B.
  2009
- **TIME-SHIFTED STREAMING IN A PEER-TO-PEER VIDEO MULTICAST SYSTEM** *IEEE Global Telecommunications Conference (GLOBECOM 09)*
  Noh, J., Mavlankar, A., Baccichet, P., Girod, B.
  IEEE.2009: 6025–6030
- **EXPERIENCES WITH A LARGE-SCALE DEPLOYMENT OF STANFORD PEER-TO-PEER MULTICAST** *17th International Packet Video Workshop*
  Noh, J., Baccichet, P., Girod, B.
  IEEE.2009: 103–111
- **CHoG: Compressed Histogram of Gradients A Low Bit-Rate Feature Descriptor** *IEEE-Computer-Society Conference on Computer Vision and Pattern Recognition Workshops*
  Chandrasekhar, V., Takacs, G., Chen, D., Tsai, S., Grzeszczuk, R., Girod, B.
  IEEE.2009: 2496–2503
- **FORWARD AND RETRANSMITTED SYSTEMATIC LOSSY ERROR PROTECTION FOR IPTV VIDEO MULTICAST** *17th International Packet Video Workshop*
  Li, Z., Zhu, X., Begen, A. C., Girod, B.

IEEE.2009: 1–9

- **DISTRIBUTED MEDIA-AWARE RATE ALLOCATION FOR WIRELESS VIDEO STREAMING** *Picture Coding Symposium 2009*
  Zhu, X., Girod, B.
  IEEE.2009: 505–508
- **COMPRESSION OF IMAGE PATCHES FOR LOCAL FEATURE EXTRACTION** *IEEE International Conference on Acoustics, Speech and Signal Processing*
  Makar, M., Chang, C., Chen, D., Tsai, S. S., Girod, B.
  IEEE.2009: 821–824
- **BACKGROUND EXTRACTION AND LONG-TERM MEMORY MOTION-COMPENSATED PREDICTION FOR SPATIAL-RANDOM-ACCESS-ENABLED VIDEO CODING** *Picture Coding Symposium 2009*
  Mavlankar, A., Girod, B.
  IEEE.2009: 61–64
- **PRE-FETCHING BASED ON VIDEO ANALYSIS FOR INTERACTIVE REGION-OF-INTEREST STREAMING OF SOCCER SEQUENCES** *16th IEEE International Conference on Image Processing*
  Mavlankar, A., Girod, B.
  IEEE.2009: 3025–3028
- **STANFORD PEER-TO-PEER MULTICAST (SPPM) - OVERVIEW AND RECENT EXTENSIONS** *Picture Coding Symposium 2009*
  Noh, J., Baccichet, P., Hartung, F., Mavlankar, A., Girod, B.
  IEEE.2009: 517–520
- **OPTIMAL SERVER BANDWIDTH ALLOCATION AMONG MULTIPLE P2P MULTICAST LIVE VIDEO STREAMING SESSIONS** *17th International Packet Video Workshop*
  Mavlankar, A., Noh, J., Girod, B.
  IEEE.2009: 10–17
- **Streaming Mobile Augmented Reality on Mobile Phones** *8th IEEE International Symposium on Mixed and Augmented Reality*
  Chen, D. M., Tsai, S. S., Vedantham, R., Grzeszczuk, R., Girod, B.
  IEEE.2009: 181–182
- **DISTRIBUTED SOURCE CODING AUTHENTICATION OF IMAGES WITH CONTRAST AND BRIGHTNESS ADJUSTMENT AND AFFINE WARPING** *Picture Coding Symposium 2009*
  Lin, Y., Varodayan, D., Girod, B.
  IEEE.2009: 317–320
- **Systematic Lossy Error Protection of Video Signals** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Rane, S., Baccichet, P., Girod, B.
  2008; 18 (10): 1347-1360
- **Analysis of packet loss for compressed video: Effect of burst losses and correlation between error frames** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Liang, Y. J., Apostolopoulos, J. G., Girod, B.
  2008; 18 (7): 861-874
- **Wyner-Ziv coding of video with unsupervised motion vector learning** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Varodayan, D., Chen, D., Flierl, M., Girod, B.
  2008; 23 (5): 369-378
- **Peer-to-peer live multicast: A video perspective** *PROCEEDINGS OF THE IEEE*
  Setton, E., Baccichet, P., Girod, B.
  2008; 96 (1): 25-38
- **DIRECTION-ADAPTIVE PARTITIONED BLOCK TRANSFORM FOR IMAGE CODING** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Chang, C., Girod, B.
  IEEE.2008: 145–148

- **Rate-efficient, Real-time CD Cover Recognition On A Camera-Phone**
  Tsai, S., S., Chen, D., M., Singh, J., P., Girod, B.
  2008

- **Outdoors Augmented Reality on Mobile Phone using Loxel-based Visual Feature Organization**
  Takacs, G., Chandrasekhar, V., Gelfand, N., Xiong, Y., Chen, W., C., Bismpigiannis, T., Girod, B.
  2008

- **Distortion-Aware Retransmission and Concealment of Video Packets Using A Wyner-Ziv-Coded Thumbnail** *10th IEEE Workshop on Multimedia Signal Processing*
  Li, Z., Lin, Y., Varodayan, D., Baccichet, P., Girod, B.
  IEEE.2008: 428–432

- **PEER-TO-PEER MULTICAST LIVE VIDEO STREAMING WITH INTERACTIVE VIRTUAL PAN/TILT/ZOOM FUNCTIONALITY** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Mavlankar, A., Noh, J., Baccichet, P., Girod, B.
  IEEE.2008: 2296–2299

- **WYNER-ZIV CODING OF MULTIVIEW IMAGES WITH UNSUPERVISED LEARNING OF DISPARITY AND GRAY CODE** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Chen, D., Varodayan, D., Flierl, M., Girod, B.
  IEEE.2008: 1112–1115

- **LOCALIZATION OF TAMPERING IN CONTRAST AND BRIGHTNESS ADJUSTED IMAGES USING DISTRIBUTED SOURCE CODING AND EXPECTATION MAXIMIZATION** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Lin, Y., Varodayan, D., Fink, T., Bellers, E., Girod, B.
  IEEE.2008: 2204–2207

- **WYNER-ZIV CODING OF MULTIVIEW IMAGES WITH UNSUPERVISED LEARNING OF TWO DISPARITIES** *IEEE International Conference on Multimedia and Expo (ICME 2008)*
  Chen, D., Varodayan, D., Flierl, M., Girod, B.
  IEEE.2008: 629–632

- **Color Restoration for Objects of Interest using Robust Image Features** *10th IEEE Workshop on Multimedia Signal Processing*
  Chen, D., Chandrasekhar, V., Takacs, G., Singh, J., Girod, B.
  IEEE.2008: 539–544

- **Image modeling with parametric texture sources for design and analysis of image processing algorithms** *Conference on Visual Communications and Image Processing 2008*
  Chang, C., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2008

- **Video multicast over wireless mesh networks with scalable video coding (SVC)** *Conference on Visual Communications and Image Processing 2008*
  Zhu, X., Schierl, T., Wiegand, T., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2008

- **DIRECTION-ADAPTIVE PARTITIONED BLOCK TRANSFORM FOR IMAGE CODING** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Chang, C., Girod, B.
  IEEE.2008: 145–148

- **Optimal Server Bandwidth Allocation for Streaming Multiple Streams via P2P Multicast** *10th IEEE Workshop on Multimedia Signal Processing*
  Mavlankar, A., Noh, J., Baccichet, P., Girod, B.
  IEEE.2008: 472–477

- **SUBJECTIVE EVALUATION OF MULTI-USER RATE ALLOCATION FOR STREAMING HETEROGENEOUS VIDEO CONTENTS OVER WIRELESS NETWORKS** *15th IEEE International Conference on Image Processing (ICIP 2008)*
  Zhu, X., Girod, B.
  IEEE.2008: 3092–3095

- **VIDEO QUALITY ASSESSMENT AND COMPARATIVE EVALUATION OF PEER-TO-PEER VIDEO STREAMING SYSTEMS** *IEEE International Conference on Multimedia and Expo (ICME 2008)*
  Mavlankar, A., Baccichet, P., Girod, B., Agarwal, S., Singh, J. P.
  IEEE.2008: 645–648
- **Performance and quality-of-service analysis of a live P2P video multicast session on the Internet** *16th International Workshop on Quality of Service (IWQoS 2008)*
  Agarwal, S., Singh, J. P., Mavlankar, A., Baccichet, P., Girod, B.
  IEEE.2008: 13–21
- **Network Image Coding for Multicast** *10th IEEE Workshop on Multimedia Signal Processing*
  Varodayan, D., Chen, D., Girod, B.
  IEEE.2008: 369–374
- **UN-LEECHING P2P STREAMING BY ACTIVE OVERLAY MANAGEMENT** *IEEE Global Telecommunications Conference (GLOBECOM 08)*
  Noh, J., Baccichet, P., Mavlankar, A., Girod, B.
  IEEE.2008
- **Distributed stereo image coding with improved disparity and noise estimation** *33rd IEEE International Conference on Acoustics, Speech and Signal Processing*
  Chen, D., Varodayan, D., Flierl, M., Girod, B.
  IEEE.2008: 1137–1140
- **Tree Histogram Coding for Mobile Image Matching** *19th Data Compression Conference*
  Chen, D. M., Tsai, S. S., Chandrasekhar, V., Takacs, G., Singh, J., Girod, B.
  IEEE COMPUTER SOC.2008: 143–152
- **Audio authentication based on distributed source coding** *33rd IEEE International Conference on Acoustics, Speech and Signal Processing*
  Varodayan, D., Lin, Y., Girod, B.
  IEEE.2008: 225–228
- **AUTHENTICATING CONTRAST AND BRIGHTNESS ADJUSTED IMAGES USING DISTRIBUTED SOURCE CODING AND EXPECTATION MAXIMIZATION** *IEEE International Conference on Multimedia and Expo (ICME 2008)*
  Lin, Y., Varodayan, D., Fink, T., Bellers, E., Girod, B.
  IEEE.2008: 613–616
- **REDUCING END-TO-END TRANSMISSION DELAY IN P2P STREAMING SYSTEMS USING MULTIPLE TREES WITH MODERATE OUTDEGREE** *IEEE International Conference on Multimedia and Expo (ICME 2008)*
  Noh, J., Mavlankar, A., Baccichet, P., Girod, B.
  IEEE.2008: 473–476
- **REDUCED-REFERENCE IMAGE QUALITY ASSESSMENT USING DISTRIBUTED SOURCE CODING** *IEEE International Conference on Multimedia and Expo (ICME 2008)*
  Chono, K., Lin, Y., Varodayan, D., Miyamoto, Y., Girod, B.
  IEEE.2008: 609–612
- **Multiview video compression - Exploiting inter-image similarities** *IEEE SIGNAL PROCESSING MAGAZINE*
  Flierl, M., Girod, B.
  2007; 24 (6): 66-76
- **Motion and disparity compensated coding, for multiview video** *International Picture Coding Symposium 2006*
  Flierl, M., Mavlankar, A., Girod, B.
  IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2007: 1474–84
- **Rate-distortion optimized interactive light field streaming** *IEEE TRANSACTIONS ON MULTIMEDIA*
  Ramanathan, P., Kalman, M., Girod, B.
  2007; 9 (4): 813-825
- **Direction-adaptive discrete wavelet transform for image compression** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Chang, C., Girod, B.

2007; 16 (5): 1289-1302

- **Image authentication and tampering localization using distributed source coding** *9th IEEE Workshop on Multimedia Signal Processing*
  Lin, Y., Varodayan, D., Girod, B.
  IEEE.2007: 393–396
- **Network-Adaptive Media Transport** *Multimedia Networking and Communication*
  Kalman, M., Girod, B.
  edited by Chou, P., A., Schaar, M., van der
  Elsevier.2007: 1
- **Peer-to-Peer Video Streaming**
  Setton, E., Girod, B.
  Springer.2007
- **Distributed Rate Allocation for Video Streaming Over Wireless Networks with Heterogeneous Link Speeds**
  Zhu, X., Girod, B.
  2007
- **Optimal Slice Size for Streaming Regions of High Resolution Video with Virtual Pan/Tilt/Zoom Functionality**
  Mavlankar, A., Baccichet, P., Varodayan, D., Girod, B.
  2007
- **Rate Allocation for Multi-User Video Streaming over Heterogenous Access Networks**
  Zhu, X., Agrawal, P., Singh, J., P., Alpcan, T., Girod, B.
  2007
- **Region-of-Interest Prediction for Interactively Streaming Regions of High Resolution Video**
  Mavlankar, A., Varodayan, D., Girod, B.
  2007
- **Spatial Models for Localization of Image Tampering using Distributed Source Codes**
  Lin, Y., C., Varodayan, D., Girod, B.
  2007
- **Video Streaming Over Wireless Networks**
  Zhu, X., Girod, B.
  2007
- **Noise Processing for Simple Laplacian Pyramid Synthesis Based on Dual Frame Reconstruction**
  Mavlankar, A., Chen, D., Zakhary, S., Flierl, M., Girod, B.
  2007
- **Low-Delay Peer-to-Peer Streaming using Scalable Video Coding**
  Baccichet, P., Schierl, T., Wiegand, T., Girod, B.
  2007
- **Direction-Adaptive Discrete Wavelet Transform for Image Compression** *IEEE Transactions on Image Processing*
  Chang, C., L., Girod, B.
  2007; 16 (5): 1289 – 1302
- **Adaptive Media Playout** *Multimedia Networking and Communication*
  Steinbach, E., Liang, Y., Kalman, M., Girod, B.
  edited by Chou, P., A., Schaar, M. v.
  Elsevier.2007: 1
- **Wyner-Ziv Coding of Stereo Images with Unsupervised Learning of Disparity**
  Varodayan, D., Lin, Y., C., Mavlankar, A., Flierl, M., Girod, B.
  2007

- **Network distributed quantization** *IEEE Information Theory Workshop*
  Rebollo-Monedero, D., Girod, B.
  IEEE.2007: 426–431
- **A new bidirectionally motion-compensated orthogonal transform for video coding** *32nd IEEE International Conference on Acoustics, Speech and Signal Processing*
  Flierl, M., Girod, B.
  IEEE.2007: 665–668
- **Robust low-delay video transmission using H.264/AVC redundant slices and flexible macroblock ordering** *IEEE International Conference on Image Processing (ICIP 2007)*
  Baccichet, P., Rane, S., Chimienti, A., Girod, B.
  IEEE.2007: 1789–1792
- **Post-processing for decoding without update step in motion-compensated lifted wavelet video coding** *Conference on Visual Communications and Image Processing 2007*
  Mavlankar, A., Flierl, M., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2007
- **Distributed channel time allocation and rate adaptation for multi-user video streaming over wireless home networks** *IEEE International Conference on Image Processing (ICIP 2007)*
  Zhu, X., Girod, B., van Beek, P.
  IEEE.2007: 2321–2324
- **Distributed grayscale stereo image coding with unsupervised learning of disparity** *17th Data Compression Conference*
  Varodayan, D., Mavlankar, A., Flierl, M., Girod, B.
  IEEE COMPUTER SOC.2007: 143–152
- **Content-aware P2P video streaming with low latency** *IEEE International Conference on Multimedia and Expo (ICME 2007)*
  Baccichet, P., Noh, J., Setton, E., Girod, B.
  IEEE.2007: 400–403
- **High-rate analysis of systematic lossy error protection of a predictively encoded source** *17th Data Compression Conference*
  Rane, S., Rebollo-Monedero, D., Girod, B.
  IEEE COMPUTER SOC.2007: 263–272
- **Half-pel accurate motion-compensated orthogonal video transforms** *17th Data Compression Conference*
  Flierl, M., Girod, B.
  IEEE COMPUTER SOC.2007: 13–22
- **Scalable direction representation for image compression with direction-adaptive discrete wavelet Transform** *Conference on Visual Communications and Image Processing 2007*
  Xu, T., Chang, C., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2007
- **Joint capacity, flow and rate allocation for multiuser video streaming over wireless ad-hoc networks** *IEEE International Conference on Communications (ICC 2007)*
  Adlakha, S., Zhu, X., Girod, B., Goldsmith, A. J.
  IEEE.2007: 1747–1753
- **Image authentication based on distributed source coding** *IEEE International Conference on Image Processing (ICIP 2007)*
  Lin, L., Varodayan, D., Girod, B.
  IEEE.2007: 1133–1136
- **A double motion-compensated orthogonal transform with energy concentration constraint** *Conference on Visual Communications and Image Processing 2007*
  Flierl, M., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2007
- **High-rate quantization and transform coding with side information at the decoder** *38th Asilomar Conference on Signals, Systems and Computers*

Rebollo-Monedero, D., Rane, S., Aaron, A., Girod, B.
ELSEVIER SCIENCE BV.2006: 3160–79

- **Rate-adaptive codes for distributed source coding** *40th Asilomar Conference on Signals, Systems and Computers*
  Varodayan, D., Aaron, A., Girod, B.
  ELSEVIER SCIENCE BV.2006: 3123–30
- **Distributed source coding** *SIGNAL PROCESSING*
  Xiong, Z., Garcia-Frias, J., Girod, B.
  2006; 86 (11): 3095-3095
- **Rate-distortion analysis for light field coding and streaming** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Rarnanathan, P., Girod, B.
  2006; 21 (6): 462-475
- **Rate-distortion analysis and streaming of SP and SI frames** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Setton, E., Girod, B.
  2006; 16 (6): 733-743
- **Light field compression using disparity-compensated lifting and shape adaptation** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Chang, C. L., Zhu, X. Q., Ramanathan, P., Girod, B.
  2006; 15 (4): 793-806
- **Congestion-distortion optimized peer-to-peer video streaming** *IEEE International Conference on Image Processing (ICIP 2006)*
  Setton, E., Noh, J., Girod, B.
  IEEE.2006: 721–724
- **Modeling and Optimization of Systematic Lossy Error Protection System based on H.264/AVC Redundant Slices**
  Rane, S., Baccichet, P., Girod, B.
  2006
- **Joint Routing and Rate Allocation for Multiple Video Streams in Ad Hoc Wireless Networks** *Journal of Zheijang University, Science A*
  Zhu, X., Singh, J., P., Girod, B.
  2006; 7 (5): 900-909
- **Systematic Lossy Error Protection based on H.264/AVC Redundant Slices and Flexible Macroblock Ordering** *Journal of Zheijang University, Science A*
  Baccichet, p., Rane, S., Girod, B.
  2006; 7 (5): 727-736
- **Media-aware multi-user rate allocation over wireless mesh network** *1st Workshop on Operator-Assisted (Wireless Mesh) Community Networks*
  Zhu, X., Girod, B.
  IEEE.2006: 26–33
- **Rate-distortion analysis of SP and SI frames** *Conferenceon Visual Communications and Image Processing 2006*
  Setton, E., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2006
- **Analysis of multi-user congestion control for video streaming over wireless networks** *IEEE International Conference on Multimedia and Expo (ICME 2006)*
  Zhu, X., Girod, B.
  IEEE.2006: 869–872
- **Low latency video streaming over peer-to-peer networks** *IEEE International Conference on Multimedia and Expo (ICME 2006)*
  Setton, E., Noh, J., Girod, B.
  IEEE.2006: 569–572
- **Direction-adaptive discrete wavelet transform via directional lifting and bandeletization** *IEEE International Conference on Image Processing (ICIP 2006)*
  Chang, C., Girod, B.

IEEE.2006: 1149–1152

- **Coding of multi-view image sequences with video sensors** *IEEE International Conference on Image Processing (ICIP 2006)*
  Flier, M., Girod, B.
  IEEE.2006: 609–612
- **Distributed coding of random dot stereograms with unsupervised learning of disparity** *8th IEEE Workshop on Multimedia Signal Processing*
  Varodayan, D., Mavlankar, A., Flierl, M., Girod, B.
  IEEE.2006: 5–8
- **Network-adaptive low-latency video communication over best-effort networks** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Liang, Y. J., Girod, B.
  2006; 16 (1): 72-81
- **A motion-compensated orthogonal transform with energy-concentration constraint** *8th IEEE Workshop on Multimedia Signal Processing*
  Flier, M., Girod, B.
  IEEE.2006: 391–394
- **Rate-distortion analysis of SP and SI frames** *Conferenceon Visual Communications and Image Processing 2006*
  Setton, E., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2006
- **Analysis of multi-user congestion control for video streaming over wireless networks** *IEEE International Conference on Multimedia and Expo (ICME 2006)*
  Zhu, X., Girod, B.
  IEEE.2006: 869–872
- **Low latency video streaming over peer-to-peer networks** *IEEE International Conference on Multimedia and Expo (ICME 2006)*
  Setton, E., Noh, J., Girod, B.
  IEEE.2006: 569–572
- **Direction-adaptive discrete wavelet transform via directional lifting and bandeletization** *IEEE International Conference on Image Processing (ICIP 2006)*
  Chang, C., Girod, B.
  IEEE.2006: 1149–1152
- **Coding of multi-view image sequences with video sensors** *IEEE International Conference on Image Processing (ICIP 2006)*
  Flier, M., Girod, B.
  IEEE.2006: 609–612
- **Distributed coding of random dot stereograms with unsupervised learning of disparity** *8th IEEE Workshop on Multimedia Signal Processing*
  Varodayan, D., Mavlankar, A., Flierl, M., Girod, B.
  IEEE.2006: 5–8
- **Network-adaptive low-latency video communication over best-effort networks** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Liang, Y. J., Girod, B.
  2006; 16 (1): 72-81
- **A motion-compensated orthogonal transform with energy-concentration constraint** *8th IEEE Workshop on Multimedia Signal Processing*
  Flier, M., Girod, B.
  IEEE.2006: 391–394
- **Network-adaptive video communication using packet path diversity and rate-distortion optimized reference picture selection** *5th IEEE Workshop on Multimedia Signal Processing (MMSP 2002)*
  Liang, Y. J., Setton, E., Girod, B.
  SPRINGER.2005: 345–54
- **Layered coding vs. multiple descriptions for video streaming over multiple paths** *MULTIMEDIA SYSTEMS*
  Chakareski, J., Han, S., Girod, B.

2005; 10 (4): 275-285

- **Rate-distortion hint tracks for adaptive video streaming** *International Conference on Image Processing (ICIP 2004)*
  Chakareski, J., Apostolopoulos, J. G., Wee, S., Tan, W. T., Girod, B.
  IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2005: 1257–69
- **Congestion-distortion optimized video transmission over ad hoc networks** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Zhu, X. Q., Setton, E., Girod, B.
  2005; 20 (8): 773-783
- **Advances in wireless video** *IEEE WIRELESS COMMUNICATIONS*
  Girod, B., Lagendijk, I., Zhang, Q., Zhu, W. W.
  2005; 12 (4): 4-5
- **Cross-layer design of ad hoc networks for real-time video streaming** *IEEE WIRELESS COMMUNICATIONS*
  Setton, E., Yoo, T., Zhu, X. Q., Goldsmith, A., Girod, B.
  2005; 12 (4): 59-65
- **Optimum update for motion-compensated lifting** *IEEE SIGNAL PROCESSING LETTERS*
  Girod, B., Han, S.
  2005; 12 (2): 150-153
- **Affine multipicture motion-compensated prediction** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Wiegand, T., Steinbach, E., Girod, B.
  2005; 15 (2): 197-209
- **Deadline-aware scheduling for wireless video streaming** *IEEE International Conference on Multimedia and Expo (ICME)*
  Liebl, G., Kalman, M., Girod, B.
  IEEE.2005: 470–473
- **Analysis on Quantization Error Propagation for Motion-Compensated Lifted Wavelet Coding**
  Chang, C.-L., Mavlankar, A., Girod, B.
  2005
- **Congestion-Optimized Routing and Scheduling of Video Over Wireless Ad Hoc Networks**
  Girod, B., Setton, E., Zhu, X.
  2005
- **Error-Resilient Video Transmission Using Multiple Embedded Wyner-Ziv Descriptions**
  Rane, S., Aaron, A., Girod, B.
  2005
- **Adaptive Wavelet Transform for Image Compression via Directional Quincunx Lifting**
  Chang, C.-L., Maleki, A., Girod, B.
  2005
- **Content-Adaptive Coding and Delay-Aware Rate Control for a Multi-Camera Wireless Surveillance Network**
  Zhu, X., Setton, E., Girod, B.
  2005
- **Optimal Update Step for Motion-Compensated Lifting** *IEEE Signal Processing Letters*
  Girod, B., Han, S.
  2005; 12 (2): 150-153
- **Techniques for Improved Rate-Distortion Optimized Video Streaming** *ST Journal of Research*
  Kalman, M., Girod, B.
  2005; 2 (1): 45-54
- **Systematic lossy error protection versus layered coding with unequal error protection** *Conference on Image and Video Communications and Processing 2005*
  Rane, S., Girod, B.

SPIE-INT SOC OPTICAL ENGINEERING.2005: 663–671

- **Systematic lossy error protection for video transmission over wireless ad hoc networks** *Conference on Visual Communications and Image Processing 2005*
  Zhu, X. Q., Rane, S., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2005: 1849–1860
- **Systematic Lossy Forward Error Protection versus Layered Coding with Unequal Error Protection**
  Rane, S., Girod, B.
  2005
- **A New Update Step for Reduction of PSNR Fluctuations in Motion-Compensated Lifted Wavelet Video Coding**
  Mavlankar, A., Han, S., Chang, C. -L., Girod, B.
  2005
- **Error-resilient video transmission using multiple embedded Wyner-Ziv descriptions** *IEEE International Conference on Image Processing (ICIP 2005)*
  Rane, S., Aaron, A., Girod, B.
  IEEE.2005: 2509–2512
- **Rate-distortion optimized video streaming over Internet packet traces** *IEEE International Conference on Image Processing (ICIP 2005)*
  Chakareski, J., Girod, B.
  IEEE.2005: 1561–1564
- **A generalization of the rate-distortion function for Wyner-Ziv coding of noisy sources in the quadratic-Gaussian case** *IEEE Data Compression Conference*
  Rebollo-Monedero, D., Girod, B.
  IEEE COMPUTER SOC.2005: 23–32
- **Receiver-driven rate-distortion optimized streaming of light fields** *IEEE International Conference on Image Processing (ICIP 2005)*
  Ramanathan, P., Girod, B.
  IEEE.2005: 3857–3860
- **Distributed rate allocation for multi-stream video transmission over ad hoc networks** *IEEE International Conference on Image Processing (ICIP 2005)*
  Zhu, X. Q., Girod, B.
  IEEE.2005: 1513–1516
- **Rate-adaptive distributed source coding using Low-Density Parity-Check codes** *39th Asilomar Conference on Signals, Systems and Computers*
  Varodayan, D., Aaron, A., Girod, B.
  IEEE.2005: 1203–1207
- **A distributed algorithm for congestion-minimized multi-path routing over ad hoc networks** *IEEE International Conference on Multimedia and Expo (ICME)*
  Zhu, X. Q., Girod, B.
  IEEE.2005: 1485–1488
- **Congestion-optimized scheduling of video over wireless ad hoc networks** *IEEE International Symposium on Circuits and Systems (ISCAS)*
  Setton, E., Zhu, X. Q., Girod, B.
  IEEE.2005: 3531–3534
- **Video streaming with SP and SI frames** *Conference on Visual Communications and Image Processing 2005*
  Setton, E., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2005: 2204–2211
- **Optimized transcoding rate selection and packet scheduling for transmitting multiple video streams over a shared channel** *IEEE International Conference on Image Processing (ICIP 2005)*
  Kalman, M., Girod, B., van Beek, P.
  IEEE.2005: 853–856

- **Wyner-Ziv quantization and transform coding of noisy sources at high rates** *Conference on Models - Third Dimension of Science*
  Rebollo-Monedero, D., Rane, S., Girod, B.
  AMER CERAMIC SOC.2005: 2084–2088
- **Design of optimal quantizers for distributed coding of noisy sources** *30th IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Rebollo-Monedero, D., Girod, B.
  IEEE.2005: 1097–1100
- **Distributed video coding** *PROCEEDINGS OF THE IEEE*
  Girod, B., Margot, A., Rane, S., Rebollo-Monedero, D.
  2005; 93 (1): 71-83
- **Video coding with motion-compensated lifted wavelet transforms** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Flierl, M., Girod, B.
  2004; 19 (7): 561-575
- **Adaptive media playout for low-delay video streaming over effor-prone channels** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Kalman, M., Steinbach, E., Girod, B.
  2004; 14 (6): 841-851
- **Rate-distortion optimized video streaming using conditional packet delay distributions** *6th IEEE Workshop on Multimedia Signal Processing*
  Kalman, M., Girod, B.
  IEEE.2004: 514–517
- **Congestion-optimized multi-path streaming of video over ad hoc wireless networks** *IEEE International Conference on Multimedia and Expo (ICME)*
  Setton, E., Zhu, X. Q., Girod, B.
  IEEE.2004: 1619–1622
- **Congestion-distortion optimized scheduling of video over a bottleneck link** *6th IEEE Workshop on Multimedia Signal Processing*
  Setton, E., Girod, B.
  IEEE.2004: 179–182
- **Rate-distortion optimized streaming for 3-D wavelet video** *International Conference on Image Processing (ICIP 2004)*
  Chang, C. L., Han, S., Girod, B.
  IEEE.2004: 3141–3144
- **Sender-based rate-distortionoptimized streaming of 3-D wavelet video with low latency** *6th IEEE Workshop on Multimedia Signal Processing*
  Chang, C. L., Han, S., Girod, B.
  IEEE.2004: 510–513
- **Minimizing distortion for multi-path video streaming over ad hoc networks** *International Conference on Image Processing (ICIP 2004)*
  Setton, E., Zhu, X. Q., Girod, B.
  IEEE.2004: 1751–1754
- **Modeling the delays of successively-transmitted Internet packets** *IEEE International Conference on Multimedia and Expo (ICME)*
  Kalman, M., Girod, B.
  IEEE.2004: 2015–2018
- **Rate-Distortion Optimized Interactive Streaming for Scalable Bitstreams of Light Fields**
  Chang, C.-L., Girod, B.
  2004
- **Real-time Streaming of Multiple Description Video with Restart**
  Setton, E., Shionozaki, A., Girod, B.
  2004
- **Wyner-Ziv Video Coding with Hash-Based Motion Compensation at the Receiver**

Aaron, A., Rane, S., Girod, B.
2004

- **Rate-Distortion Analysis of Random Access for Compressed Light Fields**
  Ramanathan, P., Girod, B.
  2004
- **Systematic Lossy Forward Error Protection for Error-Resilient Digital Video Broadcasting - A Wyner-Ziv Coding Approach**
  Rane, S., Aaron, A., Girod, B.
  2004
- **Video Streaming Over a Cross-layer Designed Ad hoc Wireless Network**
  Yoo, T., Setton, E., Zhu, X., Goldsmith, A., Girod, B.
  2004
- **Random Access for Compressed Light Fields Using Multiple Representations**
  Ramanathan, P., Girod, B.
  2004
- **Optimum Update Step for Motion-Compensated Lifted Wavelet Coding**
  Girod, B., Han, S., Chang, C. -L.
  2004
- **Theoretical Analysis of the Rate-Distortion Performance of a Light Field Streaming System**
  Ramanathan, P., Girod, B.
  2004
- **Systematic lossy forward error protection for error-resilient digital video broadcasting - A Wyner-Ziv coding approach** *International Conference on Image Processing (ICIP 2004)*
  Rane, S., Aaron, A., Girod, B.
  IEEE.2004: 3101–3104
- **Video coding with lifted wavelet transforms and complementary motion-compensated signals** *Conference on Visual Communications and Image Processing 2004*
  Flierl, M., Vandergheynst, P., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2004: 497–508
- **Systematic lossy forward error protection for error-resilient digital video broadcasting** *Conference on Visual Communications and Image Processing 2004*
  Rane, S., Aaron, A., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2004: 588–595
- **Cross-layer design for video streaming over wireless ad hoc networks** *6th IEEE Workshop on Multimedia Signal Processing*
  Yoo, T., Setton, E., Zhu, X. Q., Goldsmith, A., Girod, B.
  IEEE.2004: 99–102
- **Random access for compressed light fields using multiple representations** *6th IEEE Workshop on Multimedia Signal Processing*
  Ramanathan, P., Girod, B.
  IEEE.2004: 383–386
- **Rate-distortion analysis of random access for compressed light fields** *International Conference on Image Processing (ICIP 2004)*
  Ramanathan, P., Girod, B.
  IEEE.2004: 2463–2466
- **Analysis of Error-Resilient Video Transmission based on Systematic Source-Channel Coding**
  Rane, s., Girod, B.
  2004
- **Wyner-Ziv Video Coding with Low Encoder Complexity**
  Aaron, A., Girod, B.
  2004

- **Real-time streaming of prestored multiple description video with restart** *IEEE International Conference on Multimedia and Expo (ICME)*
  Setton, E., Shionozaki, A., Girod, B.
  IEEE.2004: 1323–1326
- **Wyner-Ziv video coding with hash-based motion compensation at the receiver** *International Conference on Image Processing (ICIP 2004)*
  Aaron, A., Rane, S., Girod, B.
  IEEE.2004: 3097–3100
- **Low-complexity rate-distortion optimized video streaming** *International Conference on Image Processing (ICIP 2004)*
  Chakareski, J., Apostolopoulos, J., Girod, B.
  IEEE.2004: 2055–2058
- **R-D hint tracks for low-complexity R-D optimized video streaming** *IEEE International Conference on Multimedia and Expo (ICME)*
  Chakareski, J., Apostolopoulos, J., Wee, S., Tan, W. T., Girod, B.
  IEEE.2004: 1387–1390
- **Transform-domain Wyner-Ziv codec for video** *Conference on Visual Communications and Image Processing 2004*
  Aaron, A., Rane, S., Setton, E., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2004: 520–528
- **Distortion chains for predicting the video distortion for general packet loss patterns** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Chakareski, J., Apostolopoulos, J., Tan, W. T., Wee, S., Girod, B.
  IEEE.2004: 1001–1004
- **Receiver-based rate-distortion optimized interactive streaming for scalable bitstreams of light fields** *IEEE International Conference on Multimedia and Expo (ICME)*
  Chang, C. L., Girod, B.
  IEEE.2004: 1623–1626
- **Rate-distortion optimized video streaming with rich acknowledgments** *Conference on Visual Communications and Image Processing 2004*
  Chakareski, J., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2004: 661–668
- **Wyner-Ziv coding of light fields for random access** *6th IEEE Workshop on Multimedia Signal Processing*
  Aaron, A., Ramanathan, P., Girod, B.
  IEEE.2004: 323–326
- **Rate-distortion optimized streaming of video with multiple independent encodings** *International Conference on Image Processing (ICIP 2004)*
  Kalman, M., Girod, B.
  IEEE.2004: 3145–3148
- **Computing rate-distortion optimized policies for streaming media with rich acknowledgments** *Data Compression Conference (DCC 2004)*
  Chakareski, J., Girod, B.
  IEEE COMPUTER SOC.2004: 202–211
- **Congestion-optimized multi-path streaming of video over ad hoc wireless networks** *IEEE International Conference on Multimedia and Expo (ICME)*
  Setton, E., Zhu, X. Q., Girod, B.
  IEEE.2004: 1619–1622
- **Congestion-distortion optimized scheduling of video over a bottleneck link** *6th IEEE Workshop on Multimedia Signal Processing*
  Setton, E., Girod, B.
  IEEE.2004: 179–182
- **Rate-distortion optimized streaming for 3-D wavelet video** *International Conference on Image Processing (ICIP 2004)*
  Chang, C. L., Han, S., Girod, B.
  IEEE.2004: 3141–3144
- **Sender-based rate-distortionoptimized streaming of 3-D wavelet video with low latency** *6th IEEE Workshop on Multimedia Signal Processing*

Chang, C. L., Han, S., Girod, B.
IEEE.2004: 510–513

- **Minimizing distortion for multi-path video streaming over ad hoc networks** *International Conference on Image Processing (ICIP 2004)*
  Setton, E., Zhu, X. Q., Girod, B.
  IEEE.2004: 1751–1754
- **Modeling the delays of successively-transmitted Internet packets** *IEEE International Conference on Multimedia and Expo (ICME)*
  Kalman, M., Girod, B.
  IEEE.2004: 2015–2018
- **Adaptive playout scheduling and loss concealment for voice communication over IP networks** *IEEE TRANSACTIONS ON MULTIMEDIA*
  Liang, Y. J., Farber, N., Girod, B.
  2003; 5 (4): 532-543
- **Multi-view coding for Image-Based Rendering using 3-D scene geometry** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Magnor, M., Ramanathan, P., Girod, B.
  2003; 13 (11): 1092-1106
- **Generalized B pictures and the draft H.264/AVC video-com-pression standard** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Flierl, M., Girod, B.
  2003; 13 (7): 587-597
- **Scalar costa scheme for information embedding** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*
  Eggers, J. J., Bauml, R., Tzschoppe, R., Girod, B.
  2003; 51 (4): 1003-1019
- **Adaptive multiple description video streaming over multiple channels with active probing** *4th International Conference on Multimedia and Expo (ICME 2003)*
  Setton, E., Liang, N., Girod, B.
  IEEE.2003: 509–512
- **Server diversity in rate-distortion optimized media streaming** *IEEE International Conference on Image Processing*
  Chakareski, J., Girod, B.
  IEEE.2003: 645–648
- **Transforms for high-rate distributed source coding** *37th Asilomar Conference on Signals, Systems and Computers*
  Rebollo-Monedero, D., Aaron, A., Girod, B.
  IEEE.2003: 850–854
- **Light field compression using disparity-compensated lifting** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Girod, B., Chang, C. L., Ramanathan, P., Zhu, X. Q.
  IEEE.2003: 760–763
- **Shape adaptation for light field compression** *IEEE International Conference on Image Processing*
  Chang, C. L., Zhu, X. Q., Ramanathan, P., Girod, B.
  IEEE.2003: 765–768
- **Video streaming with diversity** *4th International Conference on Multimedia and Expo (ICME 2003)*
  Chakareski, J., Setton, E., Liang, Y., Girod, B.
  IEEE.2003: 9–12
- **Towards practical Wyner-Ziv coding of video** *IEEE International Conference on Image Processing*
  Aaron, A., Setton, E., Girod, B.
  IEEE.2003: 869–872
- **Light field compression using disparity-compensated lifting** *4th International Conference on Multimedia and Expo (ICME 2003)*
  Girod, B., Chang, C. L., Ramanathan, P., Zhu, X. Q.
  IEEE.2003: 373–376

- **Distributed compression for large camera arrays** *12th IEEE Workshop on Statistical Signal Processing*
  Zhu, X. Q., Aaron, A., Girod, B.
  IEEE.2003: 30–33
- **Rate-distortion optimized packet scheduling and routing for media streaming with path diversity** *Data Compression Conference 2003 (DCC2003)*
  Chakareski, J., Girod, B.
  IEEE COMPUTER SOC.2003: 203–212
- **Design of optimal quantizers for distributed source coding** *Data Compression Conference 2003 (DCC2003)*
  Rebollo-Monedero, D., Zhang, R., Girod, B.
  IEEE COMPUTER SOC.2003: 13–22
- **Rate-distortion optimized streaming of compressed light fields** *IEEE International Conference on Image Processing*
  Ramanathan, P., Kalman, M., Girod, B.
  IEEE.2003: 277–280
- **Sinais e Sistemas**
  Girod, B., Rabenstein, R., Stenger, A.
  LTC - Livros Tecnicos e Cientificos Editora S.A..2003
- **Rate-distortion optimized video streaming with multiple deadlines** *IEEE International Conference on Image Processing*
  Kalman, M., Ramanathan, P., Girod, B.
  IEEE.2003: 661–664
- **Analysis of packet loss for compressed video: Does burst-length matter?** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Liang, Y. J., Apostolopoulos, J. G., Girod, B.
  IEEE.2003: 684–687
- **Inter-view wavelet compression of light fields with disparity-compensated lifting** *Conference on Visual Communications and Image Processing 2003*
  Chang, C. L., Zhu, X. Q., Ramanathan, P., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2003: 694–706
- **Investigation of Motion-Compensated Lifted Wavelet Transforms**
  Flierl, M., Girod, B.
  2003
- **Wyner-Ziv coding for video: Applications to compression and error resilience** *Data Compression Conference 2003 (DCC2003)*
  Aaron, A., Rane, S., Zhang, R., Girod, B.
  IEEE COMPUTER SOC.2003: 93–102
- **Systematic lossy forward error protection for video waveforms** *IEEE International Conference on Image Processing*
  Aaron, A., Rane, S., Rebollo-Monedero, D., Girod, B.
  IEEE.2003: 609–612
- **Server diversity in rate-distortion optimized media streaming** *IEEE International Conference on Image Processing*
  Chakareski, J., Girod, B.
  IEEE.2003: 645–648
- **Transforms for high-rate distributed source coding** *37th Asilomar Conference on Signals, Systems and Computers*
  Rebollo-Monedero, D., Aaron, A., Girod, B.
  IEEE.2003: 850–854
- **Light field compression using disparity-compensated lifting** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Girod, B., Chang, C. L., Ramanathan, P., Zhu, X. Q.
  IEEE.2003: 760–763
- **Shape adaptation for light field compression** *IEEE International Conference on Image Processing*

Chang, C. L., Zhu, X. Q., Ramanathan, P., Girod, B.
IEEE.2003: 765–768

- **Video streaming with diversity** *4th International Conference on Multimedia and Expo (ICME 2003)*
  Chakareski, J., Setton, E., Liang, Y., Girod, B.
  IEEE.2003: 9–12
- **Towards practical Wyner-Ziv coding of video** *IEEE International Conference on Image Processing*
  Aaron, A., Setton, E., Girod, B.
  IEEE.2003: 869–872
- **Light field compression using disparity-compensated lifting** *4th International Conference on Multimedia and Expo (ICME 2003)*
  Girod, B., Chang, C. L., Ramanathan, P., Zhu, X. Q.
  IEEE.2003: 373–376
- **Distributed compression for large camera arrays** *12th IEEE Workshop on Statistical Signal Processing*
  Zhu, X. Q., Aaron, A., Girod, B.
  IEEE.2003: 30–33
- **Rate-distortion optimized packet scheduling and routing for media streaming with path diversity** *Data Compression Conference 2003 (DCC2003)*
  Chakareski, J., Girod, B.
  IEEE COMPUTER SOC.2003: 203–212
- **Design of optimal quantizers for distributed source coding** *Data Compression Conference 2003 (DCC2003)*
  Rebollo-Monedero, D., Zhang, R., Girod, B.
  IEEE COMPUTER SOC.2003: 13–22
- **Rate-distortion optimized streaming of compressed light fields** *IEEE International Conference on Image Processing*
  Ramanathan, P., Kalman, M., Girod, B.
  IEEE.2003: 277–280
- **Power-spectrum condition for energy-efficient watermarking** *IEEE TRANSACTIONS ON MULTIMEDIA*
  Su, J. K., Girod, B.
  2002; 4 (4): 551-560
- **Rate-constrained multihypothesis prediction for motion-compensated video compression** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Flierl, M., Wiegand, T., Girod, B.
  2002; 12 (11): 957-969
- **Advances in channel-adaptive video streaming** *WIRELESS COMMUNICATIONS & MOBILE COMPUTING*
  Girod, B., Kalman, M., Liang, Y. J., Zhang, R.
  2002; 2 (6): 573-584
- **Channel-adaptive video streaming using packet path diversity and rate-distortion optimized reference picture selection** *5th IEEE Workshop on Multimedia Signal Processing (MMSP 2002)*
  Liang, Y. J., Setton, E., Girod, B.
  IEEE.2002: 420–423
- **Adaptive playout for adaptive media streaming**
  Kalman, M., Steinbach, E., Girod, B.
  2002
- **Low-latency Internet video streaming using channel-adaptive bitstream assembly**
  Liang, Y., Girod, B.
  2002
- **A Simulation Study of Packet Path Diversity for TCP File Transfer and Media Transport on the Internet**
  Steinbach, E., G., Liang, Y., J., Girod, B.
  2002

- **Advances in Network-adaptive Video Streaming**
  Girod, B., Chakareski, J., Kalman, M., Liang, Y., J., Setton, E., Zhang, R.
  2002
- **A Communications Approach to Image Steganography** *Electronic Imaging 2002, San Jose, CA*
  Eggers, J., J., Bäuml, R., Girod, B.
  2002
- **Estimation Of Amplitude Modifications before SCS Watermark Detection** *Electronic Imaging 2002, San Jose, CA*
  Eggers, J., J., Bäuml, R., Girod, B.
  2002
- **Model-based delay-distortion optimization for video streaming using packet interleaving** *36th Asilomar Conference on Signals, Systems and Computers*
  Liang, Y. J., Apostolopoulos, J. G., Girod, B.
  IEEE.2002: 1315–1319
- **Multi-view geometry estimation for light field compression** *International Fall Workshop on Vision Modeling and Visualization 2000*
  Sebe, I. O., Ramanathan, P., Girod, B.
  AKADEMISCHE VERLAGSGESELLSCH AKA GMBH.2002: 265–272
- **Model-based enhancement of lighting conditions in image sequences** *Conference on Visual Communications and Image Processing 2002*
  Eisert, P., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2002: 260–267
- **R-D optimized media streaming enhanced with adaptive media playout** *IEEE International Conference on Multimedia and Expo*
  Kalman, M., Steinbach, E., Girod, B.
  IEEE.2002: 869–872
- **Low-latency video transmission over lossy packet networks using rate-distortion optimized reference picture selection** *IEEE International Conference on Image Processing*
  Liang, Y. J., Flierl, M., Girod, B.
  IEEE.2002: 181–184
- **A communications approach to image steganography** *4th Conference on Security and Watermarking of Multimedia Contents*
  Eggers, J. J., Bauml, R., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2002: 26–37
- **Estimation of amplitude modifications before SCS watermark detection** *4th Conference on Security and Watermarking of Multimedia Contents*
  Eggers, J. J., Bauml, R., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2002: 387–398
- **A real-time internet streaming media testbed** *IEEE International Conference on Multimedia and Expo*
  Kellerer, W., Steinbach, E., Eisert, P., Girod, B.
  IEEE.2002: A453–A456
- **Rate-distortion optimized video streaming with adaptive playout** *IEEE International Conference on Image Processing*
  Kalman, M., Steinbach, E., Girod, B.
  IEEE.2002: 189–192
- **Geometry refinement for light field compression** *IEEE International Conference on Image Processing*
  Ramanathan, P., Steinbach, E., Eisert, P., Girod, B.
  IEEE.2002: 225–228
- **Adaptive playout for real-time media streaming** *IEEE International Symposium on Circuits and Systems*
  Kalman, M., Steinbach, E., Girod, B.
  IEEE.2002: 45–48
- **Computing rate-distortion optimized policies for hybrid receiver/sender driven streaming of multimedia** *36th Asilomar Conference on Signals, Systems and Computers*

Chakareski, J., Chou, P. A., Girod, B.
IEEE.2002: 1310–1314

- **Common principles of image acquisition systems and biological vision** *PROCEEDINGS OF THE IEEE*
  Wandell, B. A., El Gamal, A., Girod, B.
  2002; 90 (1): 5-17
- **Multi-frame motion-compensated video compression for the digital set top box** *IEEE International Conference on Image Processing*
  Girod, B., Flierl, M.
  IEEE.2002: 1–4
- **Compression with side information using turbo codes** *Data Compression Conference (DCC 2002)*
  Aaron, A., Girod, B.
  IEEE COMPUTER SOC.2002: 252–261
- **Advances in channel-adaptive video streaming** *IEEE International Conference on Image Processing*
  Girod, B., Kalman, M., Liang, Y. J., Zhang, R.
  IEEE.2002: 9–12
- **Video coding with motion compensation for groups of pictures** *IEEE International Conference on Image Processing*
  Flierl, M., Girod, B.
  IEEE.2002: 69–72
- **Robust and efficient scalable video coding with leaky prediction** *IEEE International Conference on Image Processing*
  Han, S., Girod, B.
  IEEE.2002: 41–44
- **Rate-distortion optimized streaming from the edge of the network** *5th IEEE Workshop on Multimedia Signal Processing (MMSP 2002)*
  Chakareski, J., Chou, P. A., Girod, B.
  IEEE.2002: 49–52
- **Wyner-Ziv coding of motion video** *36th Asilomar Conference on Signals, Systems and Computers*
  Aaron, A., Zhang, R., Girod, B.
  IEEE.2002: 240–244
- **Theoretical analysis of geometry inaccuracy for light field compression** *IEEE International Conference on Image Processing*
  Ramanathan, P., Girod, B.
  IEEE.2002: 229–232
- **Using a 3-D shape model for video coding** *International Fall Workshop on Vision Modeling and Visualization 2000*
  Chang, C. L., Eisert, P., Girod, B.
  AKADEMISCHE VERLAGSGESELLSCH AKA GMBH.2002: 291–297
- **Advances in channel-adaptive video streaming** *IEEE International Conference on Image Processing*
  Girod, B., Kalman, M., Liang, Y. J., Zhang, R.
  IEEE.2002: 9–12
- **Video coding with motion compensation for groups of pictures** *IEEE International Conference on Image Processing*
  Flierl, M., Girod, B.
  IEEE.2002: 69–72
- **Robust and efficient scalable video coding with leaky prediction** *IEEE International Conference on Image Processing*
  Han, S., Girod, B.
  IEEE.2002: 41–44
- **Rate-distortion optimized streaming from the edge of the network** *5th IEEE Workshop on Multimedia Signal Processing (MMSP 2002)*
  Chakareski, J., Chou, P. A., Girod, B.
  IEEE.2002: 49–52
- **Wyner-Ziv coding of motion video** *36th Asilomar Conference on Signals, Systems and Computers*
  Aaron, A., Zhang, R., Girod, B.

IEEE.2002: 240–244

- **Theoretical analysis of geometry inaccuracy for light field compression** *IEEE International Conference on Image Processing*
  Ramanathan, P., Girod, B.
  IEEE.2002: 229–232
- **Using a 3-D shape model for video coding** *International Fall Workshop on Vision Modeling and Visualization 2000*
  Chang, C. L., Eisert, P., Girod, B.
  AKADEMISCHE VERLAGSGESELLSCH AKA GMBH.2002: 291–297
- **Computer-aided 3-D simulation and prediction of craniofacial surgery: a new approach** *JOURNAL OF CRANIO-MAXILLOFACIAL SURGERY*
  Girod, S., Teschner, M., Schrell, U., Kevekordes, B., Girod, B.
  2001; 29 (3): 156-158
- **Analysis of digital watermarks subjected to optimum linear filtering and additive noise** *SIGNAL PROCESSING*
  Su, J. K., Eggers, J. J., Girod, B.
  2001; 81 (6): 1141-1175
- **Quantization effects on digital watermarks** *SIGNAL PROCESSING*
  Eggers, J. J., Girod, B.
  2001; 81 (2): 239-263
- **Error-resilient mobile video by edge adapted multiscale transforms** *International Conference on Image Processing (ICIP 2001)*
  Girod, B.
  IEEE.2001: 572–572
- **Medical image compression based on region of interest, with application to colon CT images** *23rd Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*
  Gokturk, S. B., Tomasi, C., Girod, B., Beaulieu, C.
  IEEE.2001: 2453–2456
- **Signals and Systems**
  Girod, B., Rabenstein, B., Stenger, A.
  John Wiley.2001
- **Quantization Effects on Digital Watermark** *Signal Processing*
  Eggers, J., J., Girod, B.
  2001; 81 (2): 239-263
- **Performance of a Practical Blind Watermarking Scheme**
  Eggers, J., J., Su, J., K., Girod, B.
  2001
- **Medical Image Compression Based on Region of Interest, with Application to Colon CT Images**
  Gokturk, S., B., Tomasi, C., Girod, B., Beaulieu, C.
  2001
- **Lagrange Multiplier Selection in Hybrid Video Coder Control**
  Wiegand, T., Girod, B.
  2001
- **Adaptive Playout for Low-Latency Video Streaming**
  Steinbach, E., Färber, N., Girod, B.
  2001
- **Classification of Compound Images Based on Transform Coefficient Likelihood**
  Kalman, M., Keslassy, I., Wang, D., Girod, B.
  2001
- **Multi-stream Voice Transmission over the Internet Using Path Diversity**
  Liang, Yi, J., Steinbach, E., Girod, B.

2001

- **Multi-stream Voice Transmission over the Internet Using Path Diversity**
  Liang, Yi, J., Steinbach, E., Girod, B.
  2001
- **Digital Watermarking facing Attacks by Amplitude Scaling and Additive White Noise**
  Eggers, J., J., Bäuml, R., Girod, B.
  2001
- **Adaptive playout for low latency video streaming** *International Conference on Image Processing (ICIP 2001)*
  Steinbach, E., Farber, N., Girod, B.
  IEEE.2001: 962–965
- **Digital Watermarking of Chemical Structure Sets**
  Eggers, J., J., Ihlenfeldt, W., D., Girod, B.
  2001
- **Multihypothesis Motion-Compensated Prediction with Forward-Adaptive Hypothesis Switching**
  Flierl, M., Girod, B.
  2001
- **Model-based 3-D Shape and Motion Estimation Using Sliding Textures**
  Steinbach, E., Eisert, P., Girod, B.
  2001
- **Multiframe Motion-Compensated Prediction for Video Transmission**
  Wiegand, T., Girod, B.
  Kluwer Academic Publisher.2001
- **Multi-view image coding with depth maps and 3-D geometry for prediction** *Conference on Visual Communications and Image Processing 2001*
  Magnor, M., Eisert, P., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2001: 263–271
- **Performance of a practical blind watermarking scheme** *Security and Watermarking of Multimedia Contents III Conference*
  Eggers, J. J., Su, J. K., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2001: 594–605
- **Classification of compound images based on transform coefficient likelihood** *International Conference on Image Processing (ICIP 2001)*
  Keslassy, I., Kalman, M., Wang, D., Girod, B.
  IEEE.2001: 750–753
- **Multi-stream voice over IP using packet path diversity** *4th IEEE Workshop on Multimedia Signal Processing (MMSP 01)*
  Liang, Y. J., Steinbach, E. G., Girod, B.
  IEEE.2001: 555–560
- **Blind watermarking applied to image authentication** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Eggers, J. J., Girod, B.
  IEEE.2001: 1977–1980
- **Lagrange multiplier selection in hybrid video coder control** *International Conference on Image Processing (ICIP 2001)*
  Wiegand, T., Girod, B.
  IEEE.2001: 542–545
- **Multihypothesis motion estimation for video coding** *Data Compression Conference (DCC 2001)*
  Flierl, M., Girod, B.
  IEEE COMPUTER SOC.2001: 341–350
- **3-D simulation of craniofacial surgical procedures** *Conference on Medicine Meets Virtual Reality 2001*
  Teschner, M., Girod, S., Girod, B.

I O S PRESS.2001: 502–508

- **Multihypothesis pictures for H.26L** *International Conference on Image Processing (ICIP 2001)*
  Flierl, M., Wiegand, T., Girod, B.
  IEEE.2001: 526–529
- **Realistic modeling of elasto-mechanical properties of soft tissue and its evaluation** *15th International Congress and Exhibition on Computer Assisted Radiology and Surgery*
  Teschner, M., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.2001: 51–56
- **Adaptive playout scheduling using time-scale modification in packet voice communications** *IEEE International Conference on Acoustics, Speech, and Signal Processing*
  Liang, Y. J., Farber, N., Girod, B.
  IEEE.2001: 1445–1448
- **Multi-hypothesis prediction for disparity-compensated light field compression** *International Conference on Image Processing (ICIP 2001)*
  Ramanathan, P., Flierl, M., Girod, B.
  IEEE.2001: 101–104
- **Sensitivity of image-based and texture-based multi-view coding to model accuracy** *International Conference on Image Processing (ICIP 2001)*
  Magnor, M., Girod, B.
  IEEE.2001: 98–101
- **[Possibilities of computer graphics simulation in orthopedic surgery].** *Mund-, Kiefer- und Gesichtschirurgie : MKG*
  Kessler, P., Wiltfang, J., Teschner, M., Girod, B., Neukam, F. W.
  2000; 4 (6): 373-376
- **Analysis of video transmission over lossy channels** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
  Stuhlmuller, K., Farber, N., Link, M., Girod, B.
  2000; 18 (6): 1012-1032
- **Error-resilient video transmission using long-term memory motion-compensated prediction** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
  Wiegand, T., Farber, N., Stuhlmuller, K., Girod, B.
  2000; 18 (6): 1050-1062
- **Model-aided coding: A new approach to incorporate facial animation into motion-compensated video coding** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Eisert, P., Wiegand, T., Girod, B.
  2000; 10 (3): 344-358
- **Data compression for light-field rendering** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Magnor, M., Girod, B.
  2000; 10 (3): 338-343
- **Automatic reconstruction of stationary 3-D objects from multiple uncalibrated camera views** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Eisert, P., Steinbach, E., Girod, B.
  2000; 10 (2): 261-277
- **Efficiency analysis of multihypothesis motion-compensated prediction for video coding** *IEEE TRANSACTIONS ON IMAGE PROCESSING*
  Girod, B.
  2000; 9 (2): 173-183
- **3-D object reconstruction using spatially extended voxels and multi-hypothesis voxel coloring** *15th International Conference on Pattern Recognition (ICPR-2000)*
  Steinbach, E., Girod, B., Eisert, P., Betz, A.
  IEEE COMPUTER SOC.2000: 774–777
- **Fundamental performance limits of power-spectrum condition-compliant watermarks** *Conference on Security and Watermarking of Multimedia Contents II*

Su, J. K., Girod, B.
SPIE-INT SOC OPTICAL ENGINEERING.2000: 314–325

- **Two approaches to incorporate approximate geometry into multi-view image coding** *IEEE International Conference on Image Processing (ICIP 2000)*
  Girod, B., Magnor, M.
  IEEE.2000: 5–8
- **Model-Aided Light Field Coding**
  Magnor, M., Girod, B.
  2000
- **Adaptive Intra Update for Lossy Video Transmission**
  Stuhlmüller, K., Färber, N., Girod, B.
  2000
- **A Video Codec Incorporating Block-Based Multi-Hypothesis Motion-Compensated Prediction**
  Flierl, M., Girod, B.
  2000
- **Direct Computation of Nonlinear Soft-Tissue Deformation**
  Teschner, M., Girod, S., Girod, B.
  2000
- **Object Reconstruction Using Spatially Extended Voxels**
  Steinbach, E., Eisert, P., Girod, B.
  2000
- **Model-Aided Coding: Using 3-D Scene Models in Motion-Compensated Video Coding**
  Eisert, P., Wiegand, T., Girod, B.
  2000
- **Robustness of a Blind Watermarking Scheme**
  Eggers, J., J., Su, J., K., Girod, B.
  2000
- **A Blind Watermarking Scheme Based on Structured Code Books**
  Eggers, J., J., Su, J., K., Girod, B.
  2000
- **Quantization Watermarking**
  Eggers, J., J., Girod, B.
  2000
- **Capacity of Digital Watermarks Subjected to an Optimal Collusion Attack**
  Su, J., K., Eggers, J., J., Girod, B.
  2000
- **Silhouette-Based Multiple-View Camera Calibration**
  Ramanathan, P., Steinbach, E., Girod, B.
  2000
- **Progressive Compression and Rendering of Light Fields**
  Magnor, M., Endmann, A., Girod, B.
  2000
- **Wireless Video** *Compressed Video over Networks*
  Girod, B., Färber, N.
  edited by Reibman, A., Sun, M. -T.
  Marcel Dekker.2000: 1

- **Data Compression in Image-Based Rendering** *IEEE Transactions on Circuits and Systems for Video Technology*
  Magnor, M., Girod, B.
  2000; 10 (3): 338-343
- **Quantization watermarking** *Conference on Security and Watermarking of Multimedia Contents II*
  Eggers, J. J., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2000: 60–71
- **Illustration of the duality between channel coding and rate distortion with side information** *34th Asilomar Conference on Signals, Systems, and Computers*
  Su, J. K., Eggers, J. J., Girod, B.
  IEEE.2000: 1841–1845
- **Illustration of the Duality Between Channel Coding and Rate Distortion with Side Information**
  Su, J., K., Eggers, J., J., Girod, B.
  2000
- **Direct Computation of Nonlinear Soft-Tissue Deformation**
  Teschner, M., Girod, S., Girod, B.
  2000
- **Principles of 3D Image Analysis and Synthesis**
  edited by Girod, B., Greiner, G., Niemann, H.
  Kluwer Academic Publishers.2000
- **Silhouette-based Multiple-View Camera Calibration**
  Ramanathan, P., Steinbach, E., Girod, B.
  2000
- **Interactive simulation environment for craniofacial surgical planning** *14th International Congress and Exhibition on Computer Assisted Radiology and Surgery (CARS 2000)*
  Teschner, M., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.2000: 47–52
- **Optimum attach on digital watermarks and its defense** *34th Asilomar Conference on Signals, Systems, and Computers*
  Su, J. K., Eggers, J. J., Girod, B.
  IEEE.2000: 1836–1840
- **Model-aided coding: Using 3-D scene models in motion-compensated video coding** *IEEE International Conference on Image Processing (ICIP 2000)*
  Eisert, P., Wiegand, T., Girod, B.
  IEEE.2000: 138–141
- **Watermark detection after quantization attacks** *3rd International Workshop on Information Hiding (IH 99)*
  Eggers, J. J., Girod, B.
  SPRINGER-VERLAG BERLIN.2000: 172–186
- **Robustness of a blind image watermarking scheme** *IEEE International Conference on Image Processing (ICIP 2000)*
  Eggers, J. J., Su, J. K., Girod, B.
  IEEE.2000: 17–20
- **Model-based coding of multi-viewpoint imagery** *Conference on Visual Communications and Image Processing*
  Magnor, M., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2000: 14–22
- **Long-term memory motion-compensated prediction for robust video transmission** *IEEE International Conference on Image Processing (ICIP 2000)*
  Wiegand, T., Farber, N., Stuhlmuller, K., Girod, B.
  IEEE.2000: 152–155

- **Rate-constrained multi-hypothesis motion-compensated prediction for video coding** *IEEE International Conference on Image Processing (ICIP 2000)*
  Flierl, M., Wiegand, T., Girod, B.
  IEEE.2000: 150–153
- **Trade-off between source and channel coding for video transmission** *IEEE International Conference on Image Processing (ICIP 2000)*
  Stuhlmuller, K., Farber, N., Girod, B.
  IEEE.2000: 399–402
- **Model-aided coding of multi-viewpoint image data** *IEEE International Conference on Image Processing (ICIP 2000)*
  Magnor, M., Eisert, P., Girod, B.
  IEEE.2000: 919–922
- **Adaptive optimal intra update for lossy video transmission** *Conference on Visual Communications and Image Processing*
  Stuhlmuller, K., Farber, N., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2000: 286–295
- **An image-domain cost function for 3-D rigid body motion estimation** *15th International Conference on Pattern Recognition (ICPR-2000)*
  Steinbach, E., Girod, B.
  IEEE COMPUTER SOC.2000: 815–818
- **3-D reconstruction of real-world objects using extended voxels** *IEEE International Conference on Image Processing (ICIP 2000)*
  Steinbach, E., Girod, B., Eisert, P., Betz, A.
  IEEE.2000: 569–572
- **Fundamental performance limits of power-spectrum condition-compliant watermarks** *Conference on Security and Watermarking of Multimedia Contents II*
  Su, J. K., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.2000: 314–325
- **Two approaches to incorporate approximate geometry into multi-view image coding** *IEEE International Conference on Image Processing (ICIP 2000)*
  Girod, B., Magnor, M.
  IEEE.2000: 5–8
- **Feedback-based error control for mobile video transmission** *PROCEEDINGS OF THE IEEE*
  Girod, B., Farber, N.
  1999; 87 (10): 1707-1723
- **Robust Internet video transmission based on scalable coding and unequal error protection** *SIGNAL PROCESSING-IMAGE COMMUNICATION*
  Horn, U., Stuhlmuller, K., Link, M., Girod, B.
  1999; 15 (1-2): 77-94
- **Long-term memory motion-compensated prediction** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Wiegand, T., Zhang, X. Z., Girod, B.
  1999; 9 (1): 70-84
- **Optimization approaches for soft-tissue prediction in craniofacial surgery simulation** *2nd International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 99)*
  Teschner, M., Girod, S., Girod, B.
  SPRINGER-VERLAG BERLIN.1999: 1183–1190
- **On the robustness and imperceptibility of digital fingerprints** *6th International Conference on Multimedia Computing and Systems (IEEE ICMCS 99)*
  Su, J. K., Girod, B.
  IEEE COMPUTER SOC.1999: 530–535
- **Spread spectrum watermarking: Malicious attacks and counterattacks** *Conference on Security and Watermarking of Multimedia Contents*
  Hartung, F., Su, J. K., Girod, B.

SPIE-INT SOC OPTICAL ENGINEERING.1999: 147–158

- **3-D Imaging and Compression - Synthetic Hybrid or Natural Fit?**
  Girod, B., Eisert, P., Magnor, M., Steinbach, E., Wiegand, T.
  1999
- **Channel Model for a Watermark Attack**
  Su, J., Hartung, F., Girod, B.
  1999
- **Packet Loss Resilient Internet Video Streaming**
  Girod, B., Stuhlmüller, K., Link, M., Horn, U.
  1999
- **Analysis of Error Propagation in Hybrid Video Coding with Application to Error Resilience**
  Färber, N., Stuhlmüller, K., Girod, B.
  1999
- **Hierarchical Coding of Light Fields with Disparity Maps**
  Magnor, M., Girod, B.
  1999
- **Improved Encoding of DCT Coefficients for Low Bit-Rate Video Coding Using Multiple VLC Code Tables**
  Hartung, F., Girod, B.
  1999
- **Adaptive Block-Based Light Field Coding**
  Magnor, M., Girod, B.
  1999
- **Efficient and robust soft tissue prediction in craniofacial surgery simulation using individual patient's data sets** *13th International Congress and Exhibition on Computer Assisted Radiology and Surgery (CARS 99)*
  Teschner, M., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.1999: 635–639
- **Multi-hypothesis, volumetric reconstruction of 3-D objects from multiple calibrated camera views** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*
  Eisert, P., Steinbach, E., Girod, B.
  IEEE.1999: 3509–3512
- **3-D Image Models and Compression: Synthetic Hybrid or Natural Fit?**
  Girod, B., Eisert, P., Magnor, M., Steinbach, E., Wiegand, T.
  1999
- **Interactive Craniofacial Surgery Simulation: A Optimization Approach**
  Teschner, M., Girod, S., Girod, B.
  1999
- **Scalable Internet Video Streaming with Unequal Error Protection**
  Stuhlmüller, K., Link, M., Girod, B.
  1999
- **Spread Spectrum Watermarking: Malicious Attacks and Counter-Attacks**
  Hartung, F., Su, J., Girod, B.
  1999
- **Bidirectionally Decodable Streams of Prefix Code Words** *IEEE Communications Letters*
  Girod, B.
  1999; 3 (8): 245-247
- **A channel model for a watermark attack** *Conference on Security and Watermarking of Multimedia Contents*

Su, J. K., Hartung, F., Girod, B.
SPIE-INT SOC OPTICAL ENGINEERING.1999: 159–170

- **On the robustness and imperceptibility of digital fingerprints** *6th International Conference on Multimedia Computing and Systems (IEEE ICMCS 99)*
  Su, J. K., Girod, B.
  IEEE COMPUTER SOC.1999: 530–535
- **Spread spectrum watermarking: Malicious attacks and counterattacks** *Conference on Security and Watermarking of Multimedia Contents*
  Hartung, F., Su, J. K., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.1999: 147–158
- **3-D Imaging and Compression - Synthetic Hybrid or Natural Fit?**
  Girod, B., Eisert, P., Magnor, M., Steinbach, E., Wiegand, T.
  1999
- **Channel Model for a Watermark Attack**
  Su, J., Hartung, F., Girod, B.
  1999
- **Packet Loss Resilient Internet Video Streaming**
  Girod, B., Stuhlmüller, K., Link, M., Horn, U.
  1999
- **Analysis of Error Propagation in Hybrid Video Coding with Application to Error Resilience**
  Färber, N., Stuhlmüller, K., Girod, B.
  1999
- **Hierarchical Coding of Light Fields with Disparity Maps**
  Magnor, M., Girod, B.
  1999
- **Improved Encoding of DCT Coefficients for Low Bit-Rate Video Coding Using Multiple VLC Code Tables**
  Hartung, F., Girod, B.
  1999
- **Adaptive Block-Based Light Field Coding**
  Magnor, M., Girod, B.
  1999
- **Efficient and robust soft tissue prediction in craniofacial surgery simulation using individual patient's data sets** *13th International Congress and Exhibition on Computer Assisted Radiology and Surgery (CARS 99)*
  Teschner, M., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.1999: 635–639
- **Multi-hypothesis, volumetric reconstruction of 3-D objects from multiple calibrated camera views** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*
  Eisert, P., Steinbach, E., Girod, B.
  IEEE.1999: 3509–3512
- **Digital watermarking of text, image, and video documents** *COMPUTERS & GRAPHICS-UK*
  Su, J. K., Hartung, F., Girod, B.
  1998; 22 (6): 687-695
- **Analyzing facial expressions for virtual conferencing** *IEEE COMPUTER GRAPHICS AND APPLICATIONS*
  Eisert, P., Girod, B.
  1998; 18 (5): 70-78
- **Digital watermarking of MPEG-4 facial animation parameters** *COMPUTERS & GRAPHICS-UK*
  Hartung, F., Eisert, P., Girod, B.
  1998; 22 (4): 425-435

- **Extensions of ITU-T recommendation H.324 for error-resilient video transmission** *IEEE COMMUNICATIONS MAGAZINE*
  Farber, N., Girod, B., Villasenor, J.
  1998; 36 (6): 120-128
- **Watermarking of uncompressed and compressed video** *SIGNAL PROCESSING*
  Hartung, F., Girod, B.
  1998; 66 (3): 283-301
- **Motion-based analysis and segmentation of image sequences using 3-D scene models** *SIGNAL PROCESSING*
  Steinbach, E., Eisert, P., Girod, B.
  1998; 66 (2): 233-247
- **Entropy-constrained linear vector prediction for motion-compensated video coding** *IEEE International Symposium on Information Theory*
  Wiegand, T., Flierl, M., Girod, B.
  IEEE.1998: 409–409
- **High-Order Motion Compensation for Low Bit-Rate Video**
  Girod, B., Wiegand, T., Steinbach, E., Flierl, M., Zhang, X.
  1998
- **Model-Based Coding of Facial Image Sequences at Varying Illumination Conditions**
  Eisert, P., Girod, B.
  1998
- **Image and Video Coding** *IEEE Signal Processing Magazine*
  Girod, B., Gray, R., M., Kovacevic, J., Vetterli, M.
  1998: 40-46 , 56-57
- **Multiple Reference Picture Video Coding Using Polynomial Motion Models**
  Wiegand, T., Steinbach, E., Stensrud, A., Girod, B.
  1998
- **Error-Resilient Coding for H.263** *Insights into Mobile Multimedia Communications*
  Girod, B., Färber, N., Steinbach, E.
  edited by Bull, D.
  Academic Press.1998: 445–459
- **3D-Simulation kraniofazialer Eingriffe bei Kraniosynostosen**
  Girod, S., Teschner, M., Schrell, U., Kevekordes, B., Girod, B.
  1998
- **Präoperative Visualisierung und Simulation in der kraniofazialen Chirurgie durch 3D-Laser-Scanning und 3D-Computertomographie**
  Girod, S., Teschner, M., Becker, T., Neukam, F. -W., Girod, B.
  1998
- **Multiresolution Coding of of Image and Video**
  Girod, B., Hartung, F., Horn, U.
  1998
- **Planning and Evaluation of Reorienting Osteotomies of the Proximal Femur in Cases of SCFE Using Virtual 3D Models**
  Richolt, J., Everett, P., Teschner, M., Girod, B., Millis, M., Kikinis, R.
  1998
- **Accuracy Limits for 3-D Rigid Body Motion Estimation under Perspective Projection**
  Steinbach, E., Betz, A., Girod, B.
  1998
- **Digital Watermarking of 3D Head Model Animation Parameters**
  Hartung, F., Eisert, P., Girod, B.
  1998

- **Computer Aided Diagnosis of Bone Lesions in the Facial Skeleton**
  Sörgel, W., Girod, B., Girod, S.
  1998
- **Error-Resilient Standard-Compliant Video Coding** *Signal Recovery Techniques for Image and Video Compression and Transmission*
  Girod, B., Färber, N.
  edited by Katsaggelos, A., Galatsanos, N., P.
  Kluwer Academic Publishers.1998: 175–197
- **A new approach for combined performance evaluation of wireless ATM at channel and higher protocol levels** *1st IEEE International Conference on ATM (ICATM 98)*
  Ben Younes, K., Franz, W., Girod, B.
  IEEE.1998: 71–76
- **Planning and evaluation of reorienting osteotomies of the proximal femur in cases of SCFE using virtual three-dimensional models** *1st International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 98)*
  Richolt, J. A., Teschner, M., Everett, P., Girod, B., Millis, M. B., Kikinis, R.
  SPRINGER-VERLAG BERLIN.1998: 1–8
- **Scalable codec architectures for Internet video-on-demand** *31st Asilomar Conference on Signals, Systems and Computers*
  Girod, B., Farber, N., Horn, U.
  IEEE COMPUTER SOC.1998: 357–361
- **Packet loss resilient Internet video streaming** *Meeting on Visual Communications and Image Processing*
  Girod, B., Stuhlmuller, K., Link, M., Horn, U.
  SPIE-INT SOC OPTICAL ENGINEERING.1998: 833–844
- **Why B-Pictures Work: A Theory of Multihypothesis Motion-Compensated Prediction**
  Girod, B.
  1998
- **Computer-Assisted Analysis of Hip Joint Flexibility**
  Teschner, M., Richolt, J., Kikinis, R., Girod, B.
  1998
- **The SFB 603 - Model Based Analysis and Visualization of Complex Scenes and Sensor Data**
  Niemann, H., Girod, B., Seidel, H., P., Heigl, B., Heidrich, W., Magnor, M.
  1998
- **Robust Internet Video Transmission Based on Scalable Coding and Unequal Error Protection**
  Horn, U., Stuhlmüller, K., Link, M., Girod, B.
  edited by Wedekind, H., Kleinöder, J.
  1998
- **A New Approach for Combined Performance Evaluations of Wireless ATM at Channel and Higher Protocol Levels**
  Younes, K., Ben, Franz, W., Girod, B.
  1998
- **Fast search for long-term memory motion-compensated prediction** *IEEE International Conference on Image Processing*
  Wiegand, T., Lincoln, B., Girod, B.
  IEEE COMPUTER SOC.1998: 619–622
- **A content-dependent fast DCT for low bit-rate video coding** *IEEE International Conference on Image Processing*
  Girod, B., Stuhlmuller, K. W.
  IEEE COMPUTER SOC.1998: 80–84
- **Deformable modeling of facial tissue for craniofacial surgery simulation.** *Computer aided surgery*
  Keeve, E., Girod, S., Kikinis, R., Girod, B.
  1998; 3 (5): 228-238

- **A locally optimal design algorithm for block-based multi-hypothesis motion-compensated prediction** *Data Compression Conference*
  Flierl, M., Wiegand, T., Girod, B.
  I E E E, COMPUTER SOC PRESS.1998: 239–248
- **Standard compatible extension of H.263 for robust video transmission in mobile environments** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*
  Steinbach, E., Farber, N., Girod, B.
  1997; 7 (6): 872-881
- **Performance of the H.263 video compression standard** *JOURNAL OF VLSI SIGNAL PROCESSING SYSTEMS FOR SIGNAL IMAGE AND VIDEO TECHNOLOGY*
  Girod, B., Steinbach, E., Farber, N.
  1997; 17 (2-3): 101-111
- **Scalable video transmission for the Internet** *8th Joint European Networking Conference*
  Horn, U., Girod, B.
  ELSEVIER SCIENCE BV.1997: 1833–42
- **Adaptive surface data compression** *SIGNAL PROCESSING*
  Keeve, E., Schaller, S., Girod, S., Girod, B.
  1997; 59 (2): 211-220
- **Entropy-constrained design of quadtree video coding schemes** *6th International Conference on Image Processing and its Applications*
  Wiegand, T., Flierl, M., Girod, B.
  INST ELECTRICAL ENGINEERS INSPEC INC.1997: 36–40
- **3D CT and 3D Laser Scanning in Craniofacial Tumor Surgery Planning**
  Becker, T., Girod, S., Teschner, M., Lenz, M., Girod, B.
  1997
- **Performance Evaluation of Multimedia Services over Mobile IP**
  Younes, K., Ben, Spitz, S., Dulz, W., Girod, B.
  1997
- **Model-based 3D motion estimation with illumination compensation**
  Eisert, P., Girod, B.
  1997
- **Fehlerverschleierung für paketierte Sprachübertragung durch Zeitdehnung und Phasenanpassung**
  Stenger, A., Rabenstein, R., Girod, B.
  1997
- **Advances in Digital Image Communication**
  edited by Girod, B.
  1997
- **Performance Evaluation of Wireless Indoor Communication Systems using Three-Dimensional Ray Tracing**
  Younes, K., Ben, Girod, B.
  1997
- **Data-Driven Structure-from-Motion using the Epipolar Corridor Constraint**
  Steinbach, E., Chaudhuri, S., Girod, B.
  1997
- **An Optimal Search Strategy for 3-D Motion Estimation**
  Steinbach, E., Chaudhuri, S., Girod, B.
  1997
- **Model-based Facial Expression Parameters from Image Sequences**
  Eisert, P., Girod, B.

1997

- **Block-Based Hybrid Video Coding Using Motion-Compensated Long-Term Memory Prediction**
  Wiegand, T., Zhang, X., Girod, B.
  1997
- **Motion-Compensating Long-Term Memory Prediction**
  Wiegand, T., Zhang, X., Girod, B.
  1997
- **Simulation of Highway Traffic for Mobile Communication Systems Design**
  Younes, K., Ben, Rabenstein, R., Girod, B.
  1997
- **Scalable video coding for the Internet**
  Horn, U., Girod, B.
  1997
- **A scalable codec for Internet video streaming** *13th International Conference on Digital Signal Processing (DSP 97)*
  Girod, B., Horn, U.
  IEEE.1997: 221–224
- **Model-based estimation of facial expression parameters from image sequences** *International Conference on Image Processing*
  Eisert, P., Girod, B.
  I E E E, COMPUTER SOC PRESS.1997: 418–421
- **Copyright protection in video delivery networks by watermarking of pre-compressed video** *2nd European Conference on Multimedia Applications, Services and Techniques (ECMAST 97)*
  Hartung, F., Girod, B.
  SPRINGER-VERLAG BERLIN.1997: 423–436
- **Data driven structure-from-motion using the epipolar corridor constraint** *1997 Conference on Visual Communications and Image Processing*
  Steinbach, E., Girod, B., Chaudhuri, S.
  SPIE - INT SOC OPTICAL ENGINEERING.1997: 558–567
- **Robust estimation of multi-component motion in image sequences using the epipolar constraint** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 97)*
  Steinbach, E., Chaudhuri, S., Girod, B.
  IEEE COMPUTER SOC.1997: 2689–2692
- **Model-based 3D-motion estimation with illumination compensation** *6th International Conference on Image Processing and its Applications*
  Eisert, P., Girod, B.
  INST ELECTRICAL ENGINEERS INSPEC INC.1997: 194–98
- **Multiple reference picture video coding using polynomial motion models** *Visual Communications and Image Processing 1998 Conference*
  Wiegand, T., Steinbach, E., Stensrud, A., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.1997: 134–145
- **Bit allocation methods for closed-loop coding of oversampled pyramid decompositions** *International Conference on Image Processing*
  Horn, U., Wiegand, T., Girod, B.
  I E E E, COMPUTER SOC PRESS.1997: 17–20
- **Robust H.263 compatible video transmission for mobile access to video servers** *International Conference on Image Processing*
  Farber, N., Girod, B.
  I E E E, COMPUTER SOC PRESS.1997: 73–76
- **Estimation of Motion Vectors Fields for Multiscale Motion Compensation**
  Horn, U., Girod, B.
  1997
- **Biomechanic-Based Modeling of Facial Tissue for Craniofacial Surgery Simulation**

Keeve, E., Girod, S., Neukam, F. -W., Girod, B.
1997

- **Facial Expression Analysis for Model-Based Coding of Video Sequences**
Eisert, P., Girod, B.
1997

- **Watermarking of MPEG-2 Encoded Video Without Decoding and Re-encoding**
Hartung, F., Girod, B.
1997

- **Einführung in die Systemtheorie**
Girod, B., Rabenstein, R., Stenger, A.
B. G. Teubner Verlag, Stuttgart.1997

- **Scalable Codec Architectures for Internet Video-on-Demand**
Girod, B., Färber, N., Horn, U.
1997

- **Speech Driven Synthesis of Talking Head Sequences**
Eisert, P., Chaudhuri, S., Girod, B.
1997

- **Einbettung digitaler Wasserzeichen in MPEG-2 codierte Videosequenzen**
Hartung, F., Girod, B.
1997

- **Motion segmentation for region-based coding**
Stuhlmüller, K., Girod, B.
1997

- **Rate-distortion optimal contour prediction for a region-based coder** *International Conference on Image Processing*
Stuhlmuller, K., Girod, B.
I E E E, COMPUTER SOC PRESS.1997: 49–52

- **Data-driven multi-frame 3D motion estimation** *International Conference on Image Processing*
Steinbach, E., Chaudhuri, S., Girod, B.
IEEE COMPUTER SOC.1997: 464–467

- **Motion-compensating long-term memory prediction** *International Conference on Image Processing*
Wiegand, T., Zhang, X. Z., Girod, B.
I E E E, COMPUTER SOC PRESS.1997: 53–56

- **Model-based synthetic view generation from a monocular video sequence** *International Conference on Image Processing*
Tsai, C. J., Eisert, P., Girod, B., Katsaggelos, A. K.
IEEE COMPUTER SOC.1997: 444–447

- **Fast public-key watermarking of compressed video** *International Conference on Image Processing*
Hartung, F., Girod, B.
IEEE COMPUTER SOC.1997: 528–531

- **Watermarking of MPEG-2 encoded video without decoding and re-encoding** *1997 Conference on Multimedia Computing and Networking*
Hartung, F., Girod, B.
SPIE - INT SOC OPTICAL ENGINEERING.1997: 264–274

- **Digital watermarking of MPEG-2 coded video in the bitstream domain** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 97)*
Hartung, F., Girod, B.
IEEE COMPUTER SOC.1997: 2621–2624

- **Statistical optimization of switched two-level quantizers with application to DPCM encoding of color video** *1996 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 96)*
  Hartung, F., Girod, B.
  IEEE.1996: 1974–1977
- **A New Technique for Audio Packet Loss Concealment**
  Sanneck, H., Stenger, A., Younes, K., Ben, Girod, B.
  1996
- **Computer-aided craniofacial surgery** *International Symposium on Computer and Communication Systems for Image Guided Diagnosis and Therapy (CAR 96)*
  Keeve, E., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.1996: 757–763
- **Craniofacial surgery simulation** *4th International Conference on Visualization in Biomedical Computing (VBC 96)*
  Keeve, E., Girod, S., Girod, B.
  SPRINGER-VERLAG BERLIN.1996: 541–546
- **Scalable video coding with multiscale motion compensation and unequal error protection** *Symposium on Multimedia Communications and Video Coding*
  Girod, B., Horn, U., Belzer, B.
  PLENUM PRESS DIV PLENUM PUBLISHING CORP.1996: 475–482
- **Digital watermarking of raw and compressed video** *EUROPTO Conference on Digital Compression Technologies and Systems for Video Communications*
  Hartung, F., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.1996: 205–213
- **Rate-constrained contour-representation for region-based motion compensation** *Conference on Visual Communications and Image Processing 96*
  Stuhlmuller, K. W., Salai, A., Girod, B.
  SPIE - INT SOC OPTICAL ENGINEERING.1996: 344–355
- **Robust H.263 CompatibleTransmission for Mobile Video Server Access**
  Färber, N., Steinbach, E., Girod, B.
  1996
- **Robust H.263 Compatible Video Transmission Over Wireless Channels**
  Färber, N., Steinbach, E., Girod, B.
  1996
- **Soft Tissue Prediction in Tumor Surgery of the Head and Neck by 3D CT and 3D Laser Scanning**
  Girod, S., Keeve, E., Spitzer, W., Neukam, F. -W., Girod, B.
  1996
- **Fast Rigid and Flexible Body Animation for Complex Interactive Simulations**
  Hummel, A., Girod, B.
  1996
- **Soft Tissue Prediction in Tumor Surgery of the Head and Neck by 3D CT and 3D Laser Scanning**
  Girod, S., Keeve, E., Spitzer, W., Neukam, F. -W., Girod, B.
  1996
- **Standards Based Video Communication at Very Low Bit-rates**
  Girod, B., Färber, N., Steinbach, E.
  1996
- **Scalable Video Coding for Multimedia Applications and Robust Transmission over Wireless Channels**
  Girod, B., Horn, U., Belzer, B.
  1996

- **Low Complexity Predictive Coding of Color Video Using Optimum Switched Two-Level Quantizers**
  Hartung, F., Girod, B.
  1996
- **Estimation of Rigid Body Motion and Scene Structure from Image Sequences Using a Novel Epipolar Transform**
  Steinbach, E., Girod, B.
  1996
- **A New Method for Simultaneous Estimation of Displacement, Depth, and Rigid Body Motion Parameters**
  Girod, B., Steinbach, E.
  1996
- **Computer-Aided Craniofacial Surgery** *Journal Int. Society for Computer Aided Surgery*
  Keeve, E., Girod, S., Girod, B.
  1996; 3 (2): 6-10
- **Computergraphik in der Chirurgieplanung** *it+ti - Informationstechnik und Technische Informatik*
  Keeve, E., Girod, S., Girod, B.
  1996; 38 (3): 29-34
- **Performance analysis of multiscale motion compensation techniques in pyramid coders** *International Conference on Image Processing (ICIP-96)*
  Horn, U., Girod, B.
  IEEE.1996: 255–258
- **Robust H.263 compatible transmission for mobile video server access** *1st International Workshop on Wirless Image/Video Communications*
  Farber, N., Steinbach, E., Girod, B.
  I E E E.1996: 8–13
- **Estimation of rigid body motion and scene structure from image sequences using a novel epipolar transform** *1996 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 96)*
  Steinbach, E., Girod, B.
  IEEE.1996: 1910–1913
- **Recent advances in mobile video communications** *1996 IEEE Workshop on VLSI Signal Processing*
  Girod, B., BenYounes, K., Faerber, N., Steinbach, E.
  I E E E.1996: 3–12
- **3D motion and scene structure estimation with motion dependent distortion of measurement windows** *International Conference on Image Processing (ICIP-96)*
  Steinbach, E., Hanjalic, A., Girod, B.
  IEEE.1996: 61–64
- **Anatomy-based facial tissue modeling using the finite element method** *7th Annual IEEE Conference on Visualization (Visualization 96)*
  Keeve, E., Girod, S., Pfeifle, P., Girod, B.
  IEEE COMPUTER SOC.1996: 21-?
- **Recent advances in video compression** *1996 IEEE International Symposium on Circuits and Systems - Circuits and Systems Connecting the World (ISCAS 96)*
  Girod, B., Younes, K. B., Bernstein, R., Eisert, P., Farber, N., Hartung, F., Horn, U., Steinbach, E., Stuhlmuller, K., Wiegand, T.
  IEEE.1996: 580–583
- **A Framework for Quality of Service Analysis in Mobile Communication Networks**
  Younes, K., Ben, Girod, B., Schlenker, M.
  1996
- **Robust Estimation of Three-Dimensional Motion and Structure of Multiple Objects from Image Sequences**
  Steinbach, E., Chaudhuri, S., Girod, B.
  1996

- **A New Technique for Audio Packet Loss Concealment**
  Sanneck, H., Stenger, A., Younes, K., Ben, Girod, B.
  1996
- **Computer-aided craniofacial surgery** *International Symposium on Computer and Communication Systems for Image Guided Diagnosis and Therapy (CAR 96)*
  Keeve, E., Girod, S., Girod, B.
  ELSEVIER SCIENCE BV.1996: 757–763
- **Craniofacial surgery simulation** *4th International Conference on Visualization in Biomedical Computing (VBC 96)*
  Keeve, E., Girod, S., Girod, B.
  SPRINGER-VERLAG BERLIN.1996: 541–546
- **Scalable video coding with multiscale motion compensation and unequal error protection** *Symposium on Multimedia Communications and Video Coding*
  Girod, B., Horn, U., Belzer, B.
  PLENUM PRESS DIV PLENUM PUBLISHING CORP.1996: 475–482
- **Digital watermarking of raw and compressed video** *EUROPTO Conference on Digital Compression Technologies and Systems for Video Communications*
  Hartung, F., Girod, B.
  SPIE-INT SOC OPTICAL ENGINEERING.1996: 205–213
- **Rate-constrained contour-representation for region-based motion compensation** *Conference on Visual Communications and Image Processing 96*
  Stuhlmuller, K. W., Salai, A., Girod, B.
  SPIE - INT SOC OPTICAL ENGINEERING.1996: 344–355
- **ADVANCES IN INTERACTIVE CRANIOFACIAL SURGERY PLANNING BY 3D SIMULATION AND VISUALIZATION** *INTERNATIONAL JOURNAL OF ORAL AND MAXILLOFACIAL SURGERY*
  Girod, S., Keeve, E., Girod, B.
  1995; 24 (1): 120-125
- **Joint source channel coding of images with trellis coded quantization and convolutional codes** *IEEE International Conference on Image Processing*
  Belzer, B., Villasenor, J. D., Girod, B.
  IEEE COMPUTER SOC.1995: B85–B88
- **Anatomy-Based Modeling of Human Facial Tissue for Craniofacial Surgery Simulation** *Visualization '95 - Dynamics and Complexity Bremen, Germany*
  Keeve, E., Girod, S., Jauch, J., Girod, B.
  1995
- **Anatomy-Based Modeling of Human Facial Tissue for Craniofacial Surgery Simulation** *Visualization '95 - Dynamics and Complexity*
  Keeve, E., Girod, S., Jauch, J., Girod, B.
  1995: 27–29
- **Scalable Video Coding with Multiscale Motion Compensation and Unequal Error Protection**
  Girod, B., Horn, U., Belzer, B.
  1995
- **Interactive Craniofacial Surgery Planning by 3D-Simulation and Visualization** *3rd International Workshop on Rapid Prototyping in Medicine & Computer-Assisted Surgery Erlangen, Germany*
  Keeve, E., Girod, S., Pfeifle, P., Girod, B.
  1995
- **Fortschritte in der Planung von Korrekturoperationen kraniofazialer Fehlbildungen durch interaktive 3D-Simulation und Visualisierung** *Int. J. Oral Maxillofac. Surg.*
  Girod, S., Keeve, E., Girod, B.
  1995; 24 (1): 124-125

- **Joint Source Channel Coding of Images with Trellis Coded Quantization and Convolutional Codes**
  Belzer, B., Villasenor, J., D., Girod, B.
  1995
- **Interaktive Operationsplanung: Ein physikalisches Modell zur Simulation von Weichgewebeverformungen bei craniofacialen Korrekturoperationen**
  Keeve, E., Girod, S., Girod, B.
  1995
- **Interactive Craniofacial Surgery Planning by 3D-Simulation and Visualization** *3rd International Workshop on Rapid Prototyping in Medicine & Computer-Assisted Surgery*
  Keeve, E., Girod, S., Pfeifle, P., Girod, B.
  1995: 19–21
- **FRANCIS - Ein interaktives computergraphisches Simulationssystem zur schnellen Animation starrer und flexibler Körper** *Visualization '95 - Dynamics and Complexity*
  Hummel, A., Girod, B.
  1995: 27–29
- **Multimediale Visualisierung von Umweltbelastungsdaten** *Brachflächen und Flächenrecycling*
  Keeve, E., Girod, B.
  edited by Genske, D., Noll, H. -P.
  Ernst und Sohn, Berlin, Germany.1995: 163–170
- **Computer als Medium** *Informatik heute: Informationelle Strukturen in den Wissenschaften*
  Girod, B.
  edited by Schubert, V., Seegmüller, G.
  EOS Verlag, St. Ottilien.1995: 27–48
- **Subband Image Coding** *Design and Applications of Subbands and Wavelets*
  Girod, B., Hartung, F., Horn, U.
  edited by Akansu, A., P., M., J.
  Kluwer Academic Publishers, Norwell, MA.1995: 213–250
- **Comparison of the H.263 and H.261 Video Compression Standards**
  Girod, B., Steinbach, E., Färber, N.
  1995
- **FRANCIS - Ein interaktives computergraphisches Simulationssystem zur schnellen Animation starrer und flexibler Körper** *Visualization '95 - Dynamics and Complexity Bremen, Germany*
  Hummel, A., Girod, B.
  1995
- **Image Sequence Coding Using 3D Scene Models**
  Girod, B.
  1994
- **Modeling and Animation of Facial Expressions Using B-Splines** *Visual Computer*
  Hoch, M., Fleischmann, G., Girod, B.
  1994; 11: 87-95
- **Simple range cameras based on focal error** *J. Opt. Soc. Am. A*
  Pentland, A., Scherock, S., Darell, T., Girod, B.
  1994; 11 (11): 2925-2934
- **Pyramid Coding using Lattice Vector Quantization for Scalable Video Applications**
  Horn, U., Girod, B.
  1994
- **Soft Tissue Prediction in Orthognatic Surgery by 3D-CT and 3D-Laser Scanning**

Girod, S., Keeve, E., Girod, B.
1994

- **Modeling for Real-time Facial Animation**
  Girod, B., Fleischmann, G., Heeg, R., Hoch, M., Melcher, M., Steinsträsser, R.
  1994
- **Weichteilveränderungen bei 3D-Operationsplanung bei komplexen Operationen am Gesichtsschädel** *Kongress der Deutschen Gesellschaft für Mund-, Kiefer- und Gesichtschirurgie, Kiel, Germany*
  Girod, S., Keeve, E., Girod, B.
  1994
- **Modeling for Real-time Facial Animation**
  Girod, B., Fleischmann, G., Heeg, R., Hoch, M., Melcher, M., Steinsträsser, R.
  1994
- **Weichteilveränderungen bei 3D-Operationsplanung bei komplexen Operationen am Gesichtsschädel** *Kongress der Deutschen Gesellschaft für Mund-, Kiefer- und Gesichtschirurgie, Kiel, Germany*
  Girod, S., Keeve, E., Girod, B.
  1994
- **Soft Tissue Prediction in Orthognatic Surgery by 3D-CT and 3D-Laser Scanning** *Journal Oral Maxillofacial Surgery Suppl.*
  Girod, S., Keeve, E., Girod, B.
  1993; 51: 167
- **What's Wrong With Mean Squared Error?** *Visual Factors of Electronic Image Communications*
  Girod, B.
  edited by Watson, A., B.
  MIT Press.1993: 207–220
- **Scalable Video for Multimedia Workstations** *Computers + Graphics*
  Girod, B.
  1993; 17 (3): 269-276
- **Region-Based Motion Field Estimation**
  Wagner, P., Girod, B.
  1993
- **Aktive Konturmodelle zur Segmentierung elektronenmikroskopischer Aufnahmen in der Tumordiagnose und -prognose**
  Garbe, S., Wolf, B., Keeve, E., Girod, B.
  1993
- **Interaktive Operationsplanung: 3D-Rekonstruktion tomographischer Sequenzen für die Simulation des postoperativen Erscheinungsbildes eines Patienten nach einer craniofacialen Korrekturoperation**
  Keeve, E., Girod, S., Girod, B.
  1993
- **Motion-Compensating Prediction with Fractional-Pel Accuracy** *IEEE Transactions on Communications*
  Girod, B.
  1993; 41 (4): 604-612
- **Spatial Shaping: A Fully Compatible Improvement of DCT Coding**
  Girod, B., Horn, U., Xiancheng, Y.
  1993
- **Motion Compensation: Visual Aspects, Accuracy, and Limitations** *Motion Analysis and Image Sequence Processing*
  Girod, B.
  edited by Sezan, M., I., Lagendijk, R., L.
  Kluwer Academic Publishers.1993: 125–152

- **Vector Quantization for Entropy Coding of Image Subbands** *IEEE Transactions on Image Processing*
  Senoo, T., Girod, B.
  1992; 1 (3): 526-533
- **Psychovisual Aspects of Image Communication** *invited paper, Signal Processing*
  Girod, B.
  1992; 28 (3): 239-251
- **Entropy-Coded Vector Quantization of Image Subbands**
  Girod, B., Senoo, T.
  1992
- **Entropy-Coded Vector Quantization of Image Subbands**
  Girod, B., Senoo, T.
  1991
- **Vektorquantisierung zur Entropiecodierung von teilband-zerlegten Bildsignalen**
  Girod, B., Senoo, T.
  1991
- **Displacement Estimation with a Rigid Body Motion Constraint**
  Girod, B., Wagner, P.
  1990
- **Sensing and Reconstruction of Three-Dimensional Objects and Scenes**
  edited by Girod, B.
  SPIE, Bellingham, WA.1990
- **Optimization of Subband Vector Quantization of Image Subbands**
  Senoo, T., Girod, B., Lippman, A.
  1990
- **THE FASCICULAR STRUCTURE OF THE LINGUAL NERVE AND THE CHORDA TYMPANI - AN ANATOMIC STUDY** *JOURNAL OF ORAL AND MAXILLOFACIAL SURGERY*
  Girod, S. C., Neukam, F. W., Girod, B., Reumann, K., SEMRAU, H.
  1989; 47 (6): 607-609
- **Vertical Sampling Rate Decimation and Line-Offset Decimation of Colour Difference Signals** *Signal Processing*
  Girod, B., Geuen, W.
  1989; 16 (2): 109-127
- **Depth from Defocus of Structured Light**
  Girod, B., Scherock, S.
  1989
- **The information theoretical significance of spatial and temporal masking in video signals**
  Girod, B.
  1989
- **Automatic 3-D Scene Modelling from Range and Motion**
  Girod, B., Bove Jr., V., M., Lippman, A., B.
  1989
- **Perceptual Gains for Coding of Moving Images without Visible Impairments**
  Girod, B.
  1989
- **Direct Estimation of Displacement Histograms**
  Girod, B., Kuo, D.
  1989

- **A Subjective Evaluation of Noise Shaping Quantization for Adaptive Intra-/Interframe DPCM Coding of Color Television Signals** *IEEE Transactions on Communications*
  Girod, B., Almer, H., Bengtsson, L., Christensson, B., Weiss, P.
  1988; 36 (3): 332-346
- **Ein Modell der menschlichen visuellen Wahrnehmung zur Irrelevanzreduktion von Fernsehluminanzsignalen**
  Girod, B.
  VDI-Verlag, Düsseldorf: VDI-Fortschritt-Berichte.1988
- **Spatial and Temporal Masking by Saturation in the Human Fovea**
  Girod, B.
  1988
- **Motion-Compensating Prediction with Fractional Pel Accuracy for 64 kbit/s Coding of Moving Video**
  Girod, B., Joubert, F.
  1988
- **Eye Movements and Coding of Video Sequences**
  Girod, B.
  1988
- **How important is masking for picture coding?**
  Girod, B.
  1988
- **Noise Shaping DPCM in a 34 Mbit/s Broadcast Codec**
  Girod, B., Almer, H., Bengtsson, L., Christensson, B., Weiss, P.
  1987
- **Displacement Estimation by Multi-field Matching**
  Girod, B.
  1987
- **The Efficiency of Motion-compensating Prediction for Hybrid Coding of Video Sequences** *IEEE Journal on Selected Areas in Communications*
  Girod, B.
  1987; SAC-5 (7): 1140-1154
- **Motion-Compensating Conversion without Loss of Vertical Resolution in Line-Interlaced Television Systems**
  Girod, B., Thoma, R.
  1986
- **Efficiency of motion-compensating prediction in a generalized hybrid coding scheme**
  Girod, B., Micke, T.
  1986
- **Motion Compensating Field Interpolation from Interlaced and Non-Interlaced Grids**
  Girod, B., Thoma, R.
  1985
- **Isotropic Intraframe Prediction**
  Girod, B.
  1984
- **Design of Switched Predictors for Interframe Coding of Television Signals**
  Girod, B.
  1984
- **Reconstruction Noise Shaping in the Context of Predictive TV Signal Coding**
  Girod, B.
  1984

- **A Line Multiplexer for Digital Video**
  Girod, B.
  1983
- **Prädiktoroptimierung unter Berücksichtigung multiplikativen Quantisierungsrauschens** *Kleinheubacher Berichte, Fernmeldetechnisches Zentralamt*
  Girod, B.
  1983: 393-403
- **Objective Quality Measures for the Design of Digital Image Transmission Systems**
  Girod, B.
  1981
- **Adaptive Prediction for the DPCM Coding of Television Signals** *IEEE Transactions on Acoustics, Speech, and Signal Processing*
  Girod, B.
  1981; ASSP-29 (12): 1142-1147