

# Curriculum Vitae

Zhu Li

Multimedia Research Lab (MRL), Motorola Labs  
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- Interests** Video coding and communication, collaboration and cross layer optimization in video streaming and networking.  
Scalability, Error Resilience in wireless video communication  
Optimization, game theory and their applications in multimedia networking, mobile computing, and sensor networks.  
Video analysis, summarization, indexing, retrieval and mining.  
Machine learning, manifold modeling and embedding, and their applications in multimedia and computer vision.
- Experience** **Multimedia Research Lab (MRL), Motorola Labs, Schaumburg**, Jan/00 – present.  
Current: *Principal Staff Research Engineer* – perform algorithm research and system development for various MPEG-4, H.263/264 based video coding and transmission/networking solutions, as well as multimedia analysis, understanding, and retrieval applications.  
**Image/Video Processing Lab (IVPL), Dept of EECS, Northwestern University**, Jun/04-present.  
*Adjunct Researcher* – research collaboration and student co-supervising with Prof. A. K. Katsaggelos in area of video streaming and networking, visual content analysis and visual data mining.  
**CDMA Network Software Department, Motorola CIG, Arlington Heights**, Jan/98-Jan/00.  
*Software Engineer* – protocol and software development for CDMA cellular network system, protocol design and implementation for various CDMA Hand-Off scenarios, system performance statistics and performance analysis.  
**Center for Adv. Computer Studies, University of Louisiana, Lafayette**. Aug/96-Dec/97.  
*Research Assistant* – research on algorithms for content-based image indexing and retrieval.  
*Teaching Assistant* – TA for graduate courses in Algorithm Analysis, Information Retrieval  
**SyBase China**, Feb/96-Jul/96  
*Software Engineer* – data base performance analysis for deployed system, technical support.
- Education** Ph.D. in Electrical & Computer Engineering, 2004, **Northwestern University**, Evanston.  
Thesis: “*Rate-Distortion Optimal Video Summarization and Video Retrieval Based on Principal Component Space Geometry*”  
Advisor: Professor Aggelos K. Katsaggelos.  
M.S in Computer Science, 1997, **University of Louisiana**, Lafayette.  
Project: “*An Image Retrieval Metric Based on Vector Quantization in Color Space*”  
B.S in Computer Science, 1992, **Sichuan University**, Chengdu, China.

PhD Courses (audit in *italic*, prof in [])

ECE 307 Communication System [M. Honig]	ECE 359 Digital Signal Processing [T. Pappas]
ECE 378 Digital Communication [C. Lee]	ECE 420 Digital Image Processing [T. Pappas]
ECE 380 Wireless Communication [M. Honig]	ECE 421 Multimedia Processing [T. Pappas]
ECE 422 Random Process [A. Haddad]	ECE 410 System Theory [A. Butz]
ECE 428 Information Theory [R. Berry]	ECE 510 Optimal Control [Munson]
ECE 333 Communication Network [C. Lee]	IEMS 450 Non-Linear Optimization [J. Nocedal]

ECE 454 Adv Communication Network [R. Berry] ECE 478 Adv Digital Communication [M. Honig] ECE 510 Wireless Network [R. Berry] STAT 420-1 Statistical Theory & Methodology. I [T. Severini] STAT 420-2 Statistical Theory & Methodology II [T. Severini]	ECE 510 Computer Vision [Y. Wu] ECE 418 Adv DSP (Wavelet Theory) [A. Butz] MATH 412-1 Modern Analysis I, [J. Jeromy]] MECS 460-2 Managerial Economics-Dynamic Decision Models [M. Kamien] MECS 460-3 Managerial Economics-Game Theory [A. Sandroni]
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## Recent Projects

- Joint source-channel coding and cross layer optimization for video wireless multicast.
- Luminance field manifold modeling, low dimensional embedding, data and model locality issues, and applications in video indexing/retrieval, object pose and motion recognition.
- Collaborative video streaming over WiMAX network, pricing models and resource co-ordination, scalability and error-resilience. WiMAX based scalable video broadcasting system with limited application layer feedback. Cognitive radio resource re-use and relay in wireless video broadcast.
- Very low bit rate MPEG2 to H.264 video transcoding/adaptation for bandwidth, energy efficiency in wireless video, exploiting multi-user diversity in content rate-distortion characteristics, as well as channel states.
- Intelligent video communication and networking with adaptation and collaboration. Investigate cross-layer optimization, richer video quality metrics and their applications in a multi-user collaborative framework. Methodology in Economics like pricing and game are applied for a distributed solution.
- Embedded linear/non-linear subspaces for efficient video indexing and retrieval, with component analysis (PCA, LDA, and their kernel versions) and manifold embedding techniques (LLE, Graph Laplacian Embedding).
- Face detection and recognition with a novel locally adaptive kernel metric with support vector machine classifier.
- Home Multimedia Content Management System: supporting fuzzy queries with both semantic features like keywords, and visual features like color, shape, motion and texture. Developed the MPEG-7 visual feature extraction and metrics, fuzzy logic rule system.
- Optimal Video Summarization: solves optimal summary problem as minimizing sequence distortion subject to temporal rate constraint, or its dual problem of minimizing the rate subject to some sequence distortion constraint. A new PCA based metric is developed for frame and sequence distortion, a dynamic program (DP) solution is developed for the optimal summary. Several fast approximations of DP solution are also developed.
- Porting and software optimization of MPEG-4 simple profile codec to Motorola DragonBall /Symbian platform developed by Motorola SPS Austin. Optimization of MPEG-4 simple profile software for Motorola DSP 56300 based embedded devices.
- Home Video Networking over RadioLAN. Develop embedded system with PowerPC 823 and Motorola DSP 56300 as host processors, Motorola "Cheetah" chip for H.263 video coding and decoding, and RadioLAN RF solution as communication pipe. Responsible for Linux network device driver for RadioLAN, link level ARQ protocol design for video stream, audio decoding with DSP 56300 and an optimized software MPEG-4SP decoder for DSP 56300.

## Awards/Honor:

- IEEE Senior Member
- Scholarship for M.Phil program, Department of Computer Science, Hong Kong University of Science & Technology (HKUST), 1995.
- Best Paper of the Year, Application Research Center, Motorola Labs, 2005.
- **Best Poster Paper** Award, Int'l Conference on Multimedia & Expo (ICME), Toronto, 2006, 5 awards out of 520 accepted papers.

- DoCoMo Innovative Paper (**Best Paper**) Award, Int'l Conference on Image Processing (ICIP), San Antonio, 2007, 2 awards out of 843 accepted papers.

**Patents:** 12 pursued disclosures.

- **Z. Li**, B. Gandhi, and A. Katsaggelos, US6963378, Method and Apparatus for Visual Content Reduction.
- **Z. Li**, B. Gandhi, and B. Lindsley, US7065521, Method for Fuzzy Logic Rule Based Multimedia Information Retrieval with Text and Perceptual Features.
- F. Ishitiaq, B. Gandhi, and **Z. Li**, US20070036227, Video encoding system and method for providing content adaptive rate control.
- 9 others pending.

**Book Chapter and Thesis:**

- **Z. Li**, "Rate-Distortion Optimal Video Summarization and Video Retrieval Based on Principal Component Space Geometry", PhD thesis, Department of Electrical and Computer Engineering, Northwestern University, 2004.
- **Z. Li**, A. K. Katsaggelos, and G. M. Schuster, "Rate-Distortion Optimal Video Summarization", book chapter in *Intelligent Multimedia Processing with Soft Computing*, pp. 171-204, editors: Y.P. Tan, K. H. Yap, and L. Wang., Springer-Verlag, Heidelberg, 2004.
- **Z. Li**, J. Yuan, Y. Wu, and A. K. Katsaggelos, "Multimedia Data Indexing", book chapter in prep. for *Semantic Mining Technologies for Multimedia Databases*, Ed. D. Tao, D. Xu, and X. Li, IGI Publishing, to appear, 2008.

**Referred Journal Papers:**

- **Z. Li**, A. K. Katsaggelos, G. Schuster and B. Gandhi, "Rate-Distortion Optimal Video Summary Generation", *IEEE Trans. on Image Processing*, pp. 1550-1560, vol. 14, no. 10, October, 2005.
- **Z. Li**, G. Schuster, A. K. Katsaggelos, "MINMAX Optimal Video Summarization and Coding", special issue on Analysis & Understanding for Media Adaptation, *IEEE Trans. on Circuits and System for Video Technology*, pp. 1245-1256, vol. 15, no. 10, October, 2005.
- **Z. Li**, A. K. Katsaggelos, and B. Gandhi, "Fast Video Shot Segmentation and Retrieval Based on Trace Geometry in Principal Component Space", *IEE Proceedings on Vision, Image and Signal Processing*, pp. 367-373, vol. 152(3), May, 2005.
- J. Huang, **Z. Li**, M. Chiang, and A. K. Katsaggelos, "Pricing-based Rate Control and Joint Packet Scheduling for Multi-user Wireless Uplink Video Streaming", Journal of Zhejiang University SCIENCE A, special issue for 15<sup>th</sup> Packet Video Workshop (PV), 2006.
- **Z. Li**, J. Huang, M. Chiang, and A. K. Katsaggelos, "Intelligent Wireless Video Communication: Source Adaptation and Multi-User Collaboration", invited paper, special issue on Multimedia Communication, Ed. Changwen Chen, *China Journal of Communication*, December, 2006.
- Y. Fu, **Z. Li**, T. S. Huang, and A. K. Katsaggelos, "Locally Embedded Metrics for Image / Video Clustering and Retrieval", accepted, *Journal of Computer Vision and Image Understanding (CVIU)*.
- J. Huang, **Z. Li**, M. Chiang, and A. K. Katsaggelos, "Joint Source Adaptation and Resource Pricing for Multi-User Wireless Video Streaming", accepted, *IEEE Trans. on Circuits & System for Video Tech.*
- Y. Yang, **Z. Li**, W. Shi, Y. Chen, and H. Xu, "Network-Aware Mobile Gaming State Update", accepted, *IEEE Trans. on Multimedia*.

**Journal Submissions:**

- Y. Fu, **Z. Li**, J. Yuan, T. S. Huang, and Y. Wu, “Query Driven Model Localization in Pose Estimation and Face Recognition”, under minor revision, *IEEE Trans. on Circuits & System for Video Tech.*
- **Z. Li**, F. Zhai, and A. K. Katsaggelos, “Joint Video Summarization and Transmission Adaptation for Energy Efficient Wireless Streaming”, under minor revision, *EURASIP Journal on Advances in Signal Processing.*
- L. Gao, **Z. Li**, and A. K. Katsaggelos, “Locally Embedded PCA Subspaces for Efficient Video Indexing and Retrieval”, in prep for submission to *IEEE Trans. on Image Processing.*
- **Z. Li**, Y. Chen, Y. Wang, and H. Xu, “Optimal Scheduling for Scalable Video Broadcasting with Limited Feedback”, in prep for submission to *IEEE Trans. on Circuits & System for Video Tech.*

#### Referred Conference Papers:

- **Z. Li** and A. K. Katsaggelos, "A Color Vector Quantization Based Video Coder", *Proceedings of IEEE Intl' Conf. on Image Processing (ICIP)*, Rochester, N.Y., Sept 2002.
- **Z. Li**, A. K. Katsaggelos and B. Gandhi, "Optimal Video Summary Generation and Coding", oral paper, *Proceedings of IEEE Int'l Conf on Multimedia and Expo (ICME)*, Baltimore, MD, July 2003.
- **Z. Li**, A. K. Katsaggelos, G. Schuster and B. Gandhi, "Rate-Distortion Optimal Video Summarization: A Dynamic Programming Solution", *Proceedings of IEEE Int'l Conference on Audio, Speech and Signal Processing (ICASSP)*, Montreal, Canada, 2004.
- **Z. Li**, G. Schuster, A. K. Katsaggelos and B. Gandhi, "MINMAX Optimal Video Summarization", *Proceedings of Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS)*, Lisboa, Portugal, 2004.
- **Z. Li**, A. K. Katsaggelos, and B. Gandhi, "Fast Video Retrieval with Sequence Trace in Principal Component Space", oral paper, *Proceedings of Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS)*, Lisboa, Portugal, 2004.
- **Z. Li**, G. Schuster, A. K. Katsaggelos, and B. Gandhi, "Optimal Video Summarization with Bit Budget Constraint", oral paper, *Proceedings of IEEE Intl' Conf. on Image Processing (ICIP)*, Singapore, 2004.
- **Z. Li**, A. K. Katsaggelos, and B. Gandhi "Fast video shot retrieval by trace geometry matching in principal component space", *Proceedings of IEEE Intl' Conf. on Image Processing (ICIP)*, Singapore, 2004.
- R. Ansorge, E. Kirchmeier, **Z. Li**, G. M. Schuster, and A. K. Katsaggelos, “Optimal Intra-Coded Video Summarization for Two Bandwidth Limited Channels”, *Proceedings of Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS)*, Montreux, Switzerland, 2005.
- **Z. Li**, F. Zhai, and A. K. Katsaggelos, “Video Summarization for Energy Efficient Wireless Streaming”, invited special session paper, *Proceedings of SPIE Visual Communication and Image Processing (VCIP)*, Beijing, China, 2005.
- **Z. Li**, G. M. Schuster, and A. K. Katsaggelos, “Video summarization for multipath communication”, *Proceedings of IEEE Int'l Conference on Image Processing (ICIP)*, Geona, Italy, 2005.
- **Z. Li**, Q. Cheng, A. K. Katsaggelos, and F. Ishtiaq “Video Summarization and Transmission Adaptation for Very Low Bit Rate Multiuser Wireless Uplink Video Communication”, invited paper, *Proceedings of IEEE Int'l Workshop on Multimedia Signal Processing (MMSP)*, Shanghai, China, 2005.
- P. V. Pahalawatta, **Z. Li**, F. Zhai, and A. K. Katsaggelos, invited paper, “Rate-Distortion Optimization for Internet Video Summarization and Transmission”, *Proceedings of IEEE Int'l Workshop on Multimedia Signal Processing (MMSP)*, Shanghai, China 2005.
- **Z. Li**, J. Huang, and A. K. Katsaggelos, “Pricing based collaborative multi-user video streaming over power constrained wireless down link”, oral paper, *Proceedings of IEEE Int'l Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Toulouse, France, 2006.

- **Z. Li**, L. Gao, and A. K. Katsaggelos, “Locally Embedded Linear Spaces for Efficient Video Shot Indexing and Retrieval”, **Best Poster Paper Award**, *Proceedings of IEEE Int’l Conference on Multimedia & Expo (ICME)*, Toronto, Canada, 2006.
- L. Gao, **Z. Li**, A. K. Katsaggelos, “Fast Video Shot Retrieval with Luminance Field Trace Indexing and Geometry Matching”, *Proceedings of IEEE Int’l Conference on Image Processing (ICIP)*, Atlanta, USA, 2006.
- L. Gao, **Z. Li**, A. K. Katsaggelos, “LUFT (LUMinance Field Trace) Tree: A Video Shot Segmentation and Indexing Scheme for Fast Retrieval”, invited, *Proceedings of Int’l Conference on Visual Info Engineering (VIE)*, Sept., 2006.
- L. Gao, **Z. Li**, and A. K. Katsaggelos, “Robust Video Indexing and Retrieval with Additive Noise and Frame Drops”, invited, *IEEE Int’l Workshop on Content Based Multimedia Indexing (CBMI)*, 2007.
- **Z. Li**, Y. Fu, J. Yuan, T. S. Huang, and Y. Wu, “Query Driven Local Linear Discriminant Models for Head Pose Estimation”, **Best Paper Candidate** from HCI track, *Proc. of IEEE Int’l Conf on Multimedia & Expo (ICME)*, Beijing, China, 2007.
- F. Zhai, **Z. Li** and A. K. Katsaggelos, “Joint Source-Channel Coding for Multi-User Wireless Video Communication”, Oral, Best paper award candidate, HCI track. *Proc of IEEE Int’l Conf on Multimedia & Expo (ICME)*, Beijing, China, 2007.
- Y. Fu, J. Yuan, **Z. Li**, T. S. Huang, and Y. Wu, “Expert-Model Face Recognition with Query-Driven Locally Adaptive Fisher Faces”, oral paper, *IEEE Int’l Conference on Image Processing*, San Antonio, USA, 2007.
- Y. Fu, **Z. Li**, X. Zhou, and T. S. Huang, “Laplacian Affinity Propagation For Semi-Supervised Object Classification”, **DoCoMo Innovative Paper Award**, *IEEE Int’l Conference on Image Processing*, San Antonio, USA, 2007.
- J. Yuan, **Z. Li**, Y. Fu, Y. Wu, and T. S. Huang, “Discover Spatial Patterns By Efficient Candidate Pruning”, oral paper, *IEEE Int’l Conference on Image Processing*, San Antonio, USA, 2007.
- Y. Yang, **Z. Li**, W. Shi, Y. C. Chen, and H. Xu, “Network-Aware State Update in Large Scale Mobile Games”, oral paper, *IEEE Int’l Conf on Computer Communication & Networking (ICCCN)*, Hawaii, USA, 2007.
- **Z. Li**, J. Huang, and A. K. Katsaggelos, “Utility Driven Video Segment Scheduling for Peer-to-Peer Live Video Streaming System”, accepted, *45<sup>th</sup> Allerton Conference on Communication, Control and Computing*, Monticello, IL, USA, 2007.

#### Non-Referred Conference Papers:

- **Z. Li**, F. Zhai, and A. K. Katsaggelos, “Energy Efficient Video Summarization and Transmission Over a Slow Fading Wireless Channel”, *Proceedings of SPIE Image / Video Communication and Processing (IVCP)*, San Jose, 2005.
- P. V. Pahalawatta, **Z. Li**, F. Zhai, and A. K. Katsaggelos, “Rate-Distortion Optimized Video Summary Generation and Transmission Over Packet Lossy Networks”, *Proceedings of SPIE Image / Video Communication and Processing (IVCP)*, San Jose, 2005.

#### Invited Talks and Presentations:

- “Visual Significance Metric Based Video Summary Generation”, presentation at IEEE ICME, Baltimore, 2003.
- “Fast Video Shot Retrieval with Principal Component Space Trace”, presentation at WIAMIS, Lisbon, Portugal, 2004.
- “Rate-Distortion Optimal Video Summarization with a Bit Rate Constraint”, presentation at IEEE ICIP, Singapore, 2004
- “Video Summarization, Coding and Communication”, invited talk, Shanghai Jaoton University, China, 2004
- “Video Summarization and Transmission Adaptation for Energy Efficient Video Communication”, special session talk, VCIP, Beijing, 2005.

- “Distributed Video Summarization and Transmission Adaptation for Multi-user Wireless Uplink Video Streaming”, special session talk, MMSP, Shanghai, 2005.
- “Pricing-based Rate Control and Joint Packet Scheduling for Multi-user Wireless Uplink Video Streaming”, special session talk, PacketVideo’06, Hangzhou, 2006.
- “Intelligent Multimedia Communication: Source Granularity, Collaboration and Distributed Optimization”, invited talk, Microsoft Research Asia, Beijing, 2006.
- “Radio Resource Pricing Schemes in Distributed Optimization in Multi-User Wireless Video Communication”, invited talk, Institute of Image Communication and Info Processing, Shanghai Jaoton University, China, 2006.
- “Intelligent Video Communication: Source Granularity and Optimization Decomposition”, invited talk, Motorola China Research Center, Shanghai, China, 2006.
- “Locally Embedded Subspace Learning for Fast Video Shot Retrieval”, invited talk, Dept of Electrical Engineering, University of Texas at Dallas, 2007.
- “Selected Topics in Multimedia Computing and Communication (MC<sup>2</sup>) Research”, invited talk, University of Michigan-Shanghai Jaotong University Joint Institute, Shanghai, 2007.
- “Query Driven Localized Modeling for Head Pose and Face Recognitions”, presentation at IEEE ICME 2007, Beijing.
- “Pricing Control in Video Streaming over Wireless Multi-Access Channels”, invited talk, University of Electronic Science & Technology (UESTC), Chengdu, China, 2007.
- “Utility Driven Video Segment Scheduling for P2P Live Video Streaming”, 45<sup>th</sup> Allerton Conference on Communication, Control and Computing, Monticello, IL, USA., 2007.
- “Distributed Coordination and Cross-Layer Optimization in Mutli-Access Wireless Video Streaming System”, Invited talk, Dept of Computer Science & Engineering, Hong Kong University of Science & Technology, 2007.
- “Distributed Coordination and Cross-Layer Optimization in Mutli-Access Wireless Video Streaming System”, Invited talk, Dept of Info Engineering, Chinese University of Hong Kong, 2007.
- “Model Localization in Video Search and Biometric Problems”, Dept of Computing, Hong Kong Polytechnic University, 2007.
- “Model Localization in Video Search and Biometric Problems”, Dept of Signal and Image Processing, École Nationale Supérieure des Télécommunications (ENST), Paris, France, 2007.
- “Model Localization in Large Subject Set Visual Pattern Recognition”, invited talk, Dept of Computer Science, Wayne State University, Detroit, USA, 2008.

### Membership and Services:

- IEEE Senior Member
- IEEE Signal Processing Society and Communication Society
- Member, IEEE Multimedia Communication Technical Committee (MMTC),
- Funding Proposal Reviewer, Natural Science & Engineering Research Council (NSERC) of Canada.
- Guest Editor (with Jianwei Huang and Qian Zhang), special issue on “Collaboration and Optimization in Multimedia Communication”, Journal of Advances in Multimedia, Hindawi Publication. (<http://www.hindawi.com/GetJournal.aspx?journal=AM>)
- Panel Co-Chair, “Convergence of Networks, Media and Social Computing: Technical Challenges and Business Opportunities”, 16<sup>th</sup> IEEE Int’l Conf on Computer Communication & Networking (ICCCN), August, 2007, Hawaii.
- Symposium Co-Chair (with Dr Jin Li ), 16<sup>th</sup> IEEE Int’l Conf on Computer Communication & Networking (ICCCN), Symposium on “Multimedia Coding and Communication over Wireless and Mixed Networks”, August, 2007, Hawaii.  
([http://ivpl.ece.northwestern.edu/~zli/new\\_home/ICCCN07-MM-COM-CfP.pdf](http://ivpl.ece.northwestern.edu/~zli/new_home/ICCCN07-MM-COM-CfP.pdf))
- Workshop Tech Program Co-Chair (with Prof Ebroul Izqueirido), 2<sup>nd</sup> IEEE Int’l Workshop on Multimedia Analysis & Processing (IMAP), US Virgin Island, 2008.

- Special Session Organization:
  - Z. Li and A. K. Katsaggelos, “Content Aware Video Coding/Communication for Ubiquitous Adaptation”, special session for IEEE Int’l workshop on Multimedia Signal Processing (MMSP), 2005.
  - Z. Li, H. Wang, and J. Huang, “Intelligent Video Communication: Collaboration and Adaptation”, special session for 16<sup>th</sup> Packet Video workshop (PV), 2006.
  - Z. Li, P. Frossard, and A. K. Katsaggelos, “Multi-User Collaboration and Cross Layer Optimization in Wireless Multimedia Communication”, special session for IEEE Int’l Conf. On Multimedia and Expo (ICME), 2006.
- Track/Session Chair:
  - IEEE MMSP 2005 Video Processing I
  - IEEE MMSP 2005 Special Session on Content Aware Video Coding/Communication.
  - Packet Video 2006 Special Session on Intelligent Video Communication: Collaboration and Adaptation, (I) and (II)
  - IEEE ICME 2006 Special Session on Multi-user Collaboration and Cross Layer Optimization in Wireless Multimedia Communication
  - IEEE ICCCN 2007 Wireless Multimedia Track Co-Chair
  - IEEE ICSC 2007 Multimedia, Audio and Visual Semantics Track Co-Chair.
  - IEEE ICSC 2008 Multimedia and Visual Semantics Track Co-Chair.
  - IEEE ICME 2007 Human-Computer Interface Poster Session
- Technical Program Committee (TPC) Member for:
  - IEEE Int’l Symposium on Multimedia (ISM), Irvine, California, 2005, 2006
  - IEEE GLOBECOM, Multimedia Communication Symposium, San Francisco, 2006
  - IEEE GLOBECOM, Multimedia Communication Symposium, Washington DC, 2007
  - IEEE GLOBECOM, 2008
  - IEEE Int’l Conference on Communication (ICC), Istanbul, Turkey, 2006.
  - IEEE Int’l Conference on Communication (ICC), Glasgow, Scotland, UK, 2007.
  - IEEE Int’l Conference on Communication (ICC), Beijing, China, 2008.
  - PacketVideo Workshop, Hangzhou, China, 2006.
  - IEEE Int’l Conference on Multimedia and Expo (ICME), Toronto, Canada, 2006.
  - IEEE Consumer Communications and Networking Conference (CCNC), Las Vegas, USA, 2007.
  - SPIE Symp on Multimedia System and Application X, Boston, USA, 2007.
  - Pacific Conference on Multimedia (PCM), Hong Kong, China, 2007.
  - IEEE Consumer Communications and Networking Conference (CCNC), Las Vegas, USA, 2008.
- Reviewer for:
  - *IEEE Trans. on Circuits & System for Video Technology* (T-CSVT)
  - *IEEE Trans. on Multimedia*, (T-MM)
  - *IEEE Trans. on Pattern Analysis & Machine Intelligence* (T-PAMI)
  - *IEEE Trans. on Image Processing* (T-IP)
  - *IEEE Trans. on Parallel and Distributed Systems* (T-PDS)
  - *IEEE Journal on Selected Area in Communication* (J-SAC)
  - *IEEE Communication Magazine*
  - *IEEE Trans on Broadcasting* (ToB)
  - *Neurocomputing*
  - *EURASIP Journal on Applied Signal Processing*
  - *Journal of Visual Communication and Image Representation*. (J-VCIR)
  - *Journal of Electronic Imaging* (J-EI)
  - *IEEE Int’l Conference on Image Processing* (ICIP)
  - *IEEE Int’l Conference for Multimedia & Expo* (ICME)
  - *IEEE Int’l Conference on Control and Automation* (ICCA)
  - *IEEE Workshop on Multimedia Signal Processing* (MMSP)

- *Packet Video Workshop (PV)*
- *IEEE Int'l Conference on Audio, Speech and Signal Processing (ICASSP)*
- *ACM Workshop on Multimedia Information Retrieval (MIR)*
- *Int'l Symposium on Information Processing for Sensor Network (IPSN).*

**Student Supervision:**

- Reto Ansoerge, visiting student from HSR, Switzerland, co-supervised with Prof. Katsaggelos
- Erwin Kirchmeier, visiting student from HSR, Switzerland, co-supervised with Prof. Katsaggelos
- Li Gao, PhD student, co-supervised with Prof. Katsaggelos.
- Yijing Luo, PhD student, co-supervised with Prof. Katsaggelos.
- Ying Li, Visiting PhD student (of Profs. Calderbank and Chiang) from Princeton University.

**Personal:**

- Foreign Language: Chinese (native language), Japanese (passed JPT-2)
- Marathon runner (finished Milwaukee Marathon '03, Chicago ½ Marathon '04, North Shore ½ Marathon '07), and Olympic distance Triathlete (finished Lake Zurich Triathlon '02, '03, '04, '07, Lake Geneva Triathlon '03, '05, '07, and Chicago Triathlon '05)

**References:**

Available upon request.