Iole Moccagatta - Publications

Journal papers, books, and recent conference papers

- Z. Deng, **I. Moccagatta**, "Hardware-Friendly Inter Prediction Techniques for AV1 Video Coding", 2017 IEEE International Conference on Image Processing (ICIP), 17-20 September 2017, Beijing, China.

- T. Gan, A. Dejonghe, G. Lenoir, K. Denolf, G. Lafruit, and **I. Moccagatta**, "Cross-layer optimization for multi-user video streaming over IEEE 802.11e HCCA wireless networks", 2008 IEEE International Conference on Multimedia and Expo, ICME, pp. 505-508, 23-26 June 2008, Hannover, Germany.

- X. Ji, S. Pollin, G. Lafruit, **I. Moccagatta**, A. Dejonghe, and F. Catthoor, "Energy-Efficient Bandwidth Allocation for Multi-user Scalable Video Streaming over WLAN", EURASIP Journal on Wireless Communications and Networking, special issue on Multimedia over Wireless Network, Volume 2008 (2008), Article ID 219570.

- X. Ji, G. Lafruit, **I. Moccagatta**, S. Pollin, and A. Dejonghe, "Network-Adaptive and Energy-Efficient Multi-User Video Communication Over QoS Enabled WLAN", 15th European Signal Processing Conference (EUSIPCO), September 3-7 2007, Poznan, Poland.

- T. Gan, K. Denolf, G. Lafruit, **I. Moccagatta**, A. Dejonghe and G. Lenoir, "Modelling Energy Consumption of an ASIC MPEG-4 Simple Profile Encoder", 2007 IEEE International Conference on Multimedia and Expo, ICME, pp. 1922-1925, 2-5 July 2007, Beijing, China.

- X. Ji, S. Pollin, G. Lafruit, **I. Moccagatta**, A. Dejonghe, and F. Catthoor, "Energy-Efficient Bandwidth Allocation for Multi-user Video streaming over WLAN", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 15-20 April 2007, volume 2, pp. 817-820, Honolulu, HI, USA.

- **I. Moccagatta**, V. Nollet, and J. Mignolet, "An Architecture for Agile Rich-Media Platforms", EDN Magazine, pp. 50, September 2006.

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- **I. Moccagatta**, S. Soudagar, J. Liang, and H. Chen, "Error Resilient Coding in JPEG-2000 and MPEG-4", IEEE Journal on Selected Areas of Communication, Vol. 18, No. 6, pp. 1-16, June 2000.

- R. Talluri, **I. Moccagatta**, Y. Nag, and G. Cheung. "Error Concealment by Data Partitioning", Signal Processing - Image Communication Journal, special issue on Error Resilience, Vol. 14, No. 6-8, pp. 505-518, May 1999.

- **I. Moccagatta** and R. Talluri, "MPEG-4 Video Verification Model: Status and Directions", International Journal on Imaging Systems and Technology, Vol. 8, No. 5, pp. 468-479, September 1997.

- F. Dufaux, **I. Moccagatta**, F. Moscheni, and H. Nicolas, "Vector Quantization Based Motion Field Segmentation under the Entropy Criterion", Visual Communication and Image Representation, Vol. 5, No. 4, pp. 356-369, December 1994.

- P. Cicconi, E. Reusens, F. Dufaux, **I. Moccagatta**, B. Rouchouze, T. Ebrahimi, and M. Kunt, "New Trends in Image Data Compression", Computerized Medical Imaging and Graphics, Vol. 18, No. 2, pp. 107-124, 1994.

- F. Dufaux, **I. Moccagatta**, B. Rouchouze, T. Ebrahimi, and M. Kunt, "Motion Compensated Generic Coding of Video based on Multiresolution Data Structure", Optical Engineering, Vol. 32, No. 7, pp. 1559-1570, July 1993.

- M. Mattavelli, A. Nicoulin, P. Cicconi, E. Reusens, A. Basso, F. Dufaux, T. Ebrahimi, W. Li, **I. Moccagatta**, B. Rouchouze, and M. Kunt, "The Design of Algorithms for the Compression of Digital TV Video Sequences", EPFL Supercomputing Review, No. 4, pp. 24-29, November 1992

Talks and Tutorials

- **I. Moccagatta**, and E. Albuz, "Using CUDA to Unleash Computational Power of GPU", presented at DATE' 11, Workshop on Embedded Parallel Computing Platforms (http://conferenze.dei.polimi.it/depcp/), and at Telecom ParisTech (http://www.tsi.telecom-paristech.fr/pages/events/sem-11-03-21.html), March 2011, both invited talks.

- B. Masschelein, J. Lu, and **I. Moccagatta**, "Recent Developments in Video Compression Standards: from Scalable to Multi-view Video Coding", tutorial presented at the 2007 International Conference on Consumer Electronics (ICCE), Las Vegas, NV, January 11th, 2007.

- B. Masschelein, J. Lu, and **I. Moccagatta**, "Recent Developments in Video Compression Standards: from Scalable to Multi-view Video Coding", tutorial to be presented at the 13th IEEE International Conference on Electronics, Circuits and Systems (ICECS), Nice, France, December 10-13, 2006.

- B. Masschelein, J. Lu, and **I. Moccagatta**, "Recent Developments in Video Compression Standards: from Scalable to Multi-view Video Coding", part 2 of a 3 days course on Video coding, Recent standards and Applications, IMEC Microelectronics Training Center, Leuven, Belgium, November 28th, 2006.

- **I. Moccagatta**, B. Masschelein, and J. Lu, "Recent Developments in Video Compression Standards and their Impact on Implementation Complexity: from Scalable to Multi-view Video Coding", keynote speech of the 4th IEEE Workshop on Embedded Systems for Real Time Multimedia (ESTIMedia), Seoul, Korea, October 26-27, 2006.

- **I. Moccagatta**, B. Masschelein, and J. Lu, "Recent Developments in Video Compression Standards and their Impact on Embedded Platforms: from Scalable to Multi-view Video Coding", tutorial presented at ACM Multimedia 2006, Santa Barbara, CA, October 23-27, 2006.

- **I. Moccagatta** at all., "IMEC Multimedia: research topics addressing services & applications, terminals & user devices, and enabling technologies", presented at the NEM Workshop on FP7, 3rd NEM General Assembly, Brussels, Belgium, October 11th, 2006.

- **I. Moccagatta**, "Latest developments in MPEG video coding", 4th Work Meeting of the Multimedia Community (MuMe), Leuven, Belgium, March 7th, 2006.

- G. Lafruit, **I. Moccagatta**, and W. Verachtert, "Mobile MultiView Video", Workshop on future R&D challenges in the Networked Audio-Visual Systems (NAVS) area to be addressed at EU level, Centre A. Borschette, Bruxelles, Belgium, October 6-7, 2005.

Other conference papers

- **I. Moccagatta**, and M. Coban. "Computational Complexity Evaluation of JPEG-2000", Proceedings of the SPIE's International Symposium on Optical Science and Technology, Application of Digital Image Processing XXIII, Vol. 4115, San Diego, California, August 2000.

- **I. Moccagatta**, and H. Chen, "Wavelet-Based Image Coding: Comparison of MPEG-4 and JPEG-2000", in Proceedings of the 33th Asilomar Conference on Signals, Systems and Computers, 1999.

- **I. Moccagatta**, and H. Chen, "MPEG-4 Visual Texture Coding: More Than Just Compression", in Proceedings of the 18th International Conference on Consumer Electronics (ICCE), pp. 302--303, Los Angeles, California, June 1999.

- **I. Moccagatta**, O. Alshaykh, and H. Chen, "Robust Image Compression with Packetization: the JPEG-2000 Case", in Proceedings of the 1999 Visual Communications and Image Processing (VCIP) Conference, Electronic Imaging, Vol. 3653, Part one of two, pp. 645--656, San Jose, California, January 1999.

- **I. Moccagatta**, S. L. Regunathan, O. Alshaykh, and H. Chen, "Robust Image Compression with Packetization: the MPEG-4 Still Texture Case", in Proceedings of the Second Workshop on Multimedia Signal Processing, pp. 462--467, Redondo Beach, California, December 1998.

- O. Alshaykh, **I. Moccagatta**, and H. Chen, "JPEG-2000: a New Still Image Compression Standard", in Proceedings of the 32th Asilomar Conference on Signals, Systems and Computers, 1998. Invited paper.

- J. Liang, **I. Moccagatta**, and K. Oehler, "Region-Based Video Coding with Embedded Zero-Trees", in Proceedings of the Data Compression Conference (DCC), edited by J.A. Storer and M. Cohn, IEEE Computer Society Press, pp. 449, Snowbird, Utah, March 1997.

- **I. Moccagatta** and R. Talluri, "MPEG-4 Video Verification Model: Status and Directions", in International Conference on Imaging and Image Processing Technology, Santa Barbara, California, USA, December 1996.

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- **I. Moccagatta** and M. Kunt, "An Image Coding Scheme based on Perceptually Classified VQ for High Compression Ratios", in IEEE International Conference On Acoustics, Speech And Signal Processing, Vol. 4, pp. 2487--2490, Detroit, Michigan, USA, May 1995.

- F. Moscheni, F. Dufaux, **I. Moccagatta**, and M. Schutz, "A New Motion Field Enhancement Technique for Video Coding", in Proceedings of the 7th European Conference on Signal Processing, Vol. II, pp. 692--696, Edinburgh, Scotland, September 1994.

- **I. Moccagatta**, M. Schutz, F. Moscheni, and F. Dufaux, "A Motion Field Segmentation to Improve Moving Edges Reconstruction in Video Coding", in Proceedings of 1st International Conference on Image Processing ICIP, Vol. II, pp. 751--755, Austin, Texas, USA, November 1994.

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- **I. Moccagatta** and M. Kunt, ``A Weighted Distortion Measure for Vector Quantization in the Transform Domain'', in 14th Gretsi Symposium on Signal and Image Processing, Vol. 1, pp. 459--462, Juan les Pins, France, September 1993.

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- **I. Moccagatta** and M. Kunt, "Lattice Vector Quantization Approach to Image Coding", in Proceedings of SPIE's Visual Communications and Image Processing VCIP, Vol. 1818, pp. 430--440, Boston, Massachusetts, USA, November 1992.

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