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<b>Education</b>	D.Sc. in Electrical Engineering, <i>Washington University, St Louis</i>	08/1987–05/1990
	M.Sc. in Electrical Engineering, <i>Washington University, St Louis</i>	08/1985–05/1986
	Ingénieur Civil Electricien, <i>Faculté Polytechnique de Mons, Belgium</i>	09/1979–07/1984

### Professional Experience

Professor of ECE and Statistics, <i>University of Illinois</i> , Urbana, IL	08/2003–present
Associate Professor, <i>University of Illinois</i> , Urbana, IL	08/1999–08/2003
Assistant Professor, <i>University of Illinois</i> , Urbana, IL	01/1996–08/1999
Research Scientist, <i>Bell Communications Research</i> , Morristown, NJ	10/1990–12/1995
Research Assistant, <i>Washington University</i> , St Louis, MO	10/1987–05/1990
Research Engineer, <i>Faculté Polytechnique de Mons, Belgium</i>	10/1984–06/1985
Summer Intern, <i>Standard Telecommunications Laboratories Ltd.</i> , U.K.	07/1983–08/1983

### Other Professional Activities

Editorial Board member for *Proceedings of IEEE*, 2007-2012  
Co-Founder and Editor in Chief for *IEEE Transactions on Information Forensics and Security*, 2005-2008  
Area Editor for *IEEE Transactions on Image Processing*, 2002-2006.  
Guest Editor for *IEEE Transactions on Signal Processing* supplements on secure media, 2004-2005.  
Guest Associate Editor for *IEEE Transactions on Signal Processing*'s special issue on Data Hiding, Apr. 2003.  
Guest Associate Editor for *IEEE Transactions on Information Theory*'s special issue on Information-theoretic imaging, Aug. 2000  
Associate Editor for *IEEE Transactions on Image Processing*, 1999–2002  
Associate Editor for *IEEE Transactions on Information Theory*, 1996–1998  
Member, IEEE Image and Multidim. Signal Processing Technical Committee, 1998-2003  
Member, Technical Program Committee of miscellaneous major IEEE conferences  
Invited organizer, NSF Workshop on Signal Authentication, Orlando, FL, 2002.  
Organizer, special sessions on watermarking at Allerton (10/01, 02, 03) and on information-theoretic imaging at Asilomar (11/02)  
Invited lectures at MIT, Stanford, Berkeley, Carnegie-Mellon, Harvard, Illinois, Purdue, Michigan, UC San Diego, UC Santa Barbara, Maryland, National U. of Singapore, Nanyang Tech. U. (Singapore), Chinese U. Hong Kong, Hong Kong U. of Sci. and Tech., Academia Sinica, National Chiao Tung U. (Taiwan), Hong Kong Polytechnic, KAIST (Korea), INRIA Sophia-Antipolis (France), Delft (Netherlands), Louvain (Belgium), Tech. U. Munich (Germany), Bell Labs, IBM Research, Microsoft Research, KLA-Tencor, Qualcomm.  
Keynote talks at Int. Workshop on Digital Watermarking (IWDW), Seoul, Korea, 2002; Int. Symp. on Image and Signal Processing and Analysis (ISPA), Rome, 2003; Wavila Challenge, Barcelona, Spain, 2005; IEEE Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP), Toulouse, France, 2006; Workshop on Multimedia Content Representation, Classification and Security (MRCSS), Istanbul, Turkey, 2006; 3rd Int. Conf. on

Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP), Kaohsiung, Taiwan, 2007; IEEE Int. Conf. on Image Processing (ICIP), Brussels, Belgium, 2011, EUROCON, Zagreb, Croatia, 2013; ICSIPA, Melaka, Malaysia, 2013.

Tutorial lecturer at ICIP'01, ICASSP'02, ICIP'04, and ISIT'06.

Co-Chair, IEEE Info Theory Workshop in Detection, Classif. & Imaging (Santa Fe, 2/99)

Member, *IEEE Int. Conf. on Image Processing* Organizing Committee (Chicago 1998; Technical Program Co-chair, Brussels 2011)

Reviewer and panelist for National Science Foundation, reviewer for IEEE Trans. on SP, IP, IT, COM, NN and JOSA, CVGIP, JVCIP, Addison-Wesley, IEEE Press, SIAM, and Annals of Statistics.

Consultant and expert witness

Founding Director of *Center for Information Forensics*, UIUC.

### **Honors and Awards**

IEEE Signal Processing Society Distinguished Lecturer, 2012–2013

UIUC Sony Faculty Scholar, 2005—2007

IEEE Signal Processing Society Board of Governors, 2005—2007

IEEE Fellow, 2003

Beckman Associate in UIUC Center for Advanced Study, 2003

Co-author, IEEE Signal Processing Society 2002 Young Author Best Paper Award

IEEE Signal Processing Society 1997 Best Paper Award

NSF Career award, 1998-2001

UIUC Incomplete List of Teachers Rated as Excellent, 1996, 1999, 2000, 2005, 2007, 2009, 2011, 2012

Rotary International Scholar, 1985-1986

A. Dosin Award Recipient, 1984

Co-winner 1989 US Amateur Team Chess Championship

## Journal Papers (in print or accepted)

- H. Yu and P. Moulin, "Regularized Adaboost Learning for Identification of Time-Varying Content," to appear in *IEEE Trans. Information Forensics and Security*, 2014.
- Y.-W. Huang and P. Moulin, "On the Fingerprinting Capacity Games for Arbitrary Alphabets and Their Asymptotics," to appear in *IEEE Trans. Information Forensics and Security*, 2014.
- B. Ni, P. Moulin and S. Yan, "Pose Adaptive Motion Feature Pooling for Human Action Analysis," to appear in *International Journal on Computer Vision (IJCV)*, July 2014.
- J. Lu, G. Wang and P. Moulin, "Human Identity and Gender Recognition from Gait Sequences with Arbitrary Walking Directions," *IEEE Trans. on Information Forensics and Security*, Vol. 9, No. 1, pp. 41—51, 2014.
- B. Ni, Y. Pei, S. Yan, and P. Moulin, "Multi-Level Depth and Image Fusion for Human Activity Detection," *IEEE Transactions on System, Man and Cybernetics, Part B (TSMC-B)*, Vol. 43, No. 5, pp.1383—1394, 2012.
- Y.-W. Huang and P. Moulin, "On the Saddle-point Solution and the Large-Coalition Behavior of Fingerprinting Games," *IEEE Trans. on Information Forensics and Security*, Vol. 7, No. 1, pp. 160—175, 2012.
- S. Sadasivam, P. Moulin and T. P. Coleman, "A Message Passing Approach to Combating Desynchronization Attacks," *IEEE Trans. on Information Forensics and Security*, Vol. 6, pp. 894—905, 2011.
- J.-F. Jourdas and P. Moulin, "High-Rate Random-Like Fingerprinting Codes with Linear Decoding Complexity," *IEEE Transactions on Information Forensics and Security*, Vol. 4, No. 4, Dec. 2009.
- N. Kiyavash, P. Moulin and T. Kalker, "Regular Simplex Fingerprints and Their Optimality Properties," *IEEE Transactions on Information Forensics and Security*, Vol. 4, No. 3, pp. 318—329, Sep. 2009.
- N. Kiyavash and P. Moulin, "Performance of Orthogonal Fingerprints Under Worst-Case Noise Attacks," *IEEE Transactions on Information Forensics and Security*, Vol. 4, No. 3, pp. 293—301, Sep. 2009.
- M. El Choubassi and P. Moulin, "On Reliability and Security of Randomized Detectors Against Sensitivity Analysis Attacks," *IEEE Trans. Information Forensics and Security*, Vol. 4, No. 3, pp. 273—283, Sep. 2009.
- S. Sadasivam and P. Moulin, "On Estimation Accuracy of Desynchronization Attack Channel Parameters," *IEEE Transactions on Information Forensics and Security*, Vol. 4, No. 3, pp. 284—292, Sep. 2009.
- P. Moulin, "A Neyman-Pearson Approach to Universal Erasure and List Decoding," *IEEE Trans. Information Theory*, Oct. 2009.
- Y. Wang and P. Moulin, "Perfectly Secure Steganography: Capacity, Error Exponents, and Code Constructions," *IEEE Transactions on Information Theory*, Special Issue on Security, Vol. 54, No. 6, pp. 2706—2722, June 2008.
- M. El Choubassi and P. Moulin, "Noniterative Algorithms for Sensitivity Analysis Attacks," *IEEE Trans. Information Forensics and Security*, Vol. 2, No.3, pp. 113—126, June

2007.

P. Moulin and Y. Wang, "Capacity and Random-Coding Exponents for Channel Coding with Side Information," *IEEE Trans. on Information Theory*, Vol. 53, No. 4, pp. 1326—1347, Apr. 2007.

Y. Wang and P. Moulin, "Optimized Feature Extraction for Learning-Based Image Steganalysis," *IEEE Trans. Information Forensics and Security*, Vol. 2, No. 1, pp. 31—45, March 2007.

P. Moulin, "Signal Transmission with Known-Interference Cancellation," *IEEE Signal Processing Magazine*, Lecture Notes, Vol. 24, No. 1, pp. 134—136, Jan. 2007.

J. C. Ye, P. Moulin and Y. Bresler, "Asymptotic Global Confidence Regions for Parametric 3-D Shape Estimation," *IEEE Trans. Image Processing*, Vol. 15, No. 10, pp. 2904—2919, Oct. 2006.

P. Moulin and A. K. Goteti, "Block QIM Watermarking Games," *IEEE Trans. Information Forensics and Security*, Vol. 1, No. 3, pp. 293—310, Sep. 2006.

S. Jana and P. Moulin, "Optimality of KLT for Encoding Gaussian Vector-Scale Mixtures: Application to Reconstruction, Estimation and Classification," *IEEE Trans. on Information Theory*, Vol. 52, No. 9, pp. 4049—4067, Sep. 2006.

T. Liu, P. Moulin and R. Koetter, "On Error Exponents of Modulo Lattice Additive Noise Channels," *IEEE Trans. on Information Theory*, Vol. 52, No. 2, pp. 454—471, Feb. 2006.

P. Moulin and R. Koetter, "Data-Hiding Codes," invited tutorial paper, *Proc. IEEE*, Vol. 93, No. 12, pp. 2083—2127, Dec. 2005.

P. Ishwar and P. Moulin, "On the Existence and Characterization of the Maxent Distribution Under General Moment Inequality Constraints," *IEEE Trans. on Information Theory*, Vol. 51, No. 9, pp. 3322—3333, Sep. 2005.

J. L. Cannons and P. Moulin, "Design and Statistical Analysis of a Hash-Aided Image Watermarking System," *IEEE Trans. on Image Processing*, Vol. 13, No. 10, pp. 1393—1408, Oct. 2004.

P. Moulin and M. K. Mihçak, "The Parallel-Gaussian Watermarking Game," *IEEE Trans. on Information Theory*, Vol. 50, No. 2, pp. 272—289, Feb. 2004.

P. Moulin, "Comments on "Why Watermarking is Nonsense," *IEEE Signal Processing Magazine*, Vol. 20, No. 6, pp. 57—59, Nov. 2003.

P. Moulin and A. Ivanović, "The Zero-Rate Spread-Spectrum Watermarking Game," *IEEE Transactions on Signal Processing*, Vol. 51, No. 4, pp. 1098—1117, Apr. 2003.

P. Moulin and J. A. O'Sullivan, "Information-Theoretic Analysis of Information Hiding," *IEEE Trans. on Information Theory*, Vol. 49, No. 3, pp. 563—593, March 2003.

P. Ishwar and P. Moulin, "On the Equivalence Between Set-Theoretic and Maxent MAP Estimation," *IEEE Trans. on Signal Processing*, Vol. 51, No. 3, pp. 698—713, March 2003.

J. C. Ye, Y. Bresler and P. Moulin, "Cramer-Rao Bounds for Parametric Shape Estimation in Inverse Problems," *IEEE Trans. on Image Processing*, Vol. 12, No. 1, pp. 71—84, Jan. 2003.

J. C. Ye, Y. Bresler and P. Moulin, "A Self-Referencing Level-Set Method for Image Reconstruction from Sparse Fourier Samples," invited paper, *Int. J. of Computer Vision*,

special issue on level-set methods, Dec. 2002.

P. Moulin and M. K. Mihçak, "A Framework for Evaluating the Data-Hiding Capacity of Image Sources," *IEEE Trans. on Image Processing*, Vol. 11, No. 9, pp. 1029–1042, Sep. 2002.

A. Jain, P. Moulin, M. I. Miller and K. Ramchandran, "Information-Theoretic Bounds on Target Recognition Performance Based on Degraded Image Data," *IEEE Trans. on Pattern Analysis and Machine Intelligence*, Vol. 24, No. 9, pp. 1153–1166, Sep. 2002.

J. Liu and P. Moulin, "Information-Theoretic Analysis of Interscale and Intrascale Dependencies Between Image Wavelet Coefficients," *IEEE Trans. on Image Processing*, Vol. 10, No. 10, pp. 1647–1658, Nov. 2001.

P. Moulin, invited discussion of "Regularization of Wavelet Approximations," by A. Antoniadis and J. Fan, *Journal of the American Statistical Association*, Vol. 96, No. 455, pp. 959–960, Sep. 2001.

P. Moulin, "The Role of Information Theory in Watermarking and Its Application to Image Watermarking," invited paper, *Signal Processing*, Vol. 81, No. 6, pp. 1121–1139, June 2001.

J. Liu and P. Moulin, "Complexity-Regularized Image Denoising," *IEEE Trans. on Image Processing*, Vol. 10, No. 6, pp. 841–851, June 2001.

J. C. Ye, Y. Bresler and P. Moulin, "Cramer-Rao Bounds for Parametric Boundaries of Targets in Inverse Scattering Problems," *IEEE Trans. on Antennas and Propagation*, May 2001.

M. K. Mihçak, P. Moulin, M. Anitescu, and K. Ramchandran, "Rate-Distortion-Optimal Subband Coding Without Perfect Reconstruction Constraints," *IEEE Trans. on Signal Processing*, Vol. 49, No. 3, pp. 542–557, Mar. 2001.

P. Ishwar and P. Moulin, "On Spatial Adaptation of Motion Field Smoothness in Video Coding," *IEEE Trans. Circ. Syst. Video Tech.*, Vol. 10, No. 6, pp. 980–989, Sep. 2000.

P. Moulin and J. Liu, "Statistical Imaging and Complexity Regularization," *IEEE Trans. on Information Theory*, Special issue on information-theoretic imaging, Vol. 46, No. 5, pp. 1762–1777, Aug. 2000.

J. C. Ye, Y. Bresler and P. Moulin, "Asymptotic Global Confidence Regions in Parametric Shape Estimation Problems," *IEEE Trans. on Information Theory*, Special issue on information-theoretic imaging, Vol. 46, No. 5, pp. 1881–1895, Aug. 2000.

P. Moulin, M. Anitescu, and K. Ramchandran, "Theory of Rate-Distortion-Optimal, Constrained Filter Banks — Application to FIR and IIR Biorthogonal Designs," *IEEE Trans. on Signal Processing*, Vol. 48, No. 4, pp. 1120–1132, April 2000.

M. K. Mihçak, I. Kozintsev, K. Ramchandran and P. Moulin, "Low-Complexity Image Denoising Based on Statistical Modeling of Wavelet Coefficients," *IEEE Signal Processing Letters*, Vol. 6, No. 12, pp. 300–303, Dec. 1999.

R. Krishnamurthy, J. W. Woods and P. Moulin, "Frame Interpolation and Bidirectional Prediction of Video Using Compactly-Encoded Optical Flow Fields and Label Fields," *IEEE Trans. Circ. Syst. Video Tech.*, Vol. 9, No. 5, pp. 713–726, Aug. 1999.

P. Moulin and J. Liu, "Analysis of Multiresolution Image Denoising Schemes Using Generalized-Gaussian and Complexity Priors," *IEEE Trans. on Info. Theory*, Special Issue on Multi-

scale Analysis, Vol. 45, No. 3, pp. 909-919, Apr. 1999.

V. Pavlovic, P. Moulin and K. Ramchandran, "An Integrated Framework for Adaptive Subband Image Coding," *IEEE Trans. on Signal Processing*, Vol. 47, No. 4, pp. 1024-1038, Apr. 1999.

P. Moulin and M. K. Mıhçak, "Theory and Design of Signal-Adapted FIR Paraunitary Filter Banks," *IEEE Trans. on Signal Processing*, Special Issue on Wavelets and Filter Banks, Vol. 46, No. 4, pp. 920—929, Apr. 1998.

P. Moulin, R. Krishnamurthy, "Multiscale Modeling and Estimation of Motion Fields for Video Coding, *IEEE Trans. on Image Processing*, Vol. 6, No. 12, pp. 1606—1620, Dec. 1997.

P. Moulin, M. Anitescu, K.O. Kortanek and F. Potra, "The Role of Linear Semi-Infinite Programming in Signal-Adapted QMF Bank Design," *IEEE Trans. on Signal Processing*, Vol. 45, No. 9, pp. 2160—2174, Sep. 1997.

P. Moulin, "A Multiscale Relaxation Technique for SNR Maximization in Nonorthogonal Subband Coding," *IEEE Trans. on Image Processing*, Vol. 4, No. 9, pp. 1269—1281, Sep. 1995.

P. Moulin, A.T. Ogielski, G. Lilienfeld and J.W. Woods: "Video Signal Processing and Coding on Data-Parallel Computers," *Digital Signal Processing: A Review Journal*, Vol. 5, No. 2, pp. 118—129, Apr. 1995.

P. Moulin, invited discussion of "Wavelet Shrinkage: Asymptotia?" by D. Donoho and I. Johnstone, *Journal of the Royal Statistical Society B*, Vol. 57, No. 1, 1995.

P. Moulin, "Wavelet Thresholding Techniques for Power Spectrum Estimation," *IEEE Trans. on Signal Processing*, Vol. 42, No. 11, pp. 3126—3136, Nov. 1994.

P. Moulin, "A Wavelet Regularization Method for Diffuse Radar-Target Imaging and Speckle-Noise Reduction," *Journal of Mathematical Imaging and Vision*, Special Issue on Wavelets, Vol. 3, No. 1, pp. 123—134, 1993.

J. A. O'Sullivan, P. Moulin, and D. L. Snyder, "An Application of Splines to Maximum Likelihood Radar Imaging," *International Journal of Imaging Systems and Technology*, Vol. 4, pp. 256—264, 1993.

P. Moulin, J. A. O'Sullivan, and D. L. Snyder, "A Method of Sieves for Multiresolution Spectrum Estimation and Radar Imaging," *IEEE Trans. on Information Theory*, Special Issue on Wavelets and Multiresolution Analysis, pp. 801—813, Mar. 1992.

### Journal Papers Submitted for Publication

P. Moulin, "The Log-Volume of Optimal Codes on Memoryless Channels, Within a Few Nats," submitted to *IEEE Trans. Information Theory*, Oct. 2013.

B. Ni, G. Wang, and P. Moulin, "Order Preserving Sparse Coding", submitted to *IEEE Trans. on Pattern Recognition and Machine Intelligence*, 2013.

Y. Wang and P. Moulin, "Blind Fingerprinting," submitted to *IEEE Trans. Information Theory*, Feb. 2008.

P. Moulin, "Universal Fingerprinting: Capacity and Random-Coding Exponents," submitted to *IEEE Trans. Information Theory*. Available from arxiv:0801.3837v2 [cs.IT] 09 Dec

2008.

### Book Chapters

- B. Ni, G. Wang, and P. Moulin, "RGBD-HuDaAct: A color-depth video database for human daily activity recognition," *Consumer Depth Cameras for Computer Vision: Advances in Computer Vision and Pattern Recognition*, pp 193-208, Springer-Verlag, 2013.
- P. Moulin, "Information-Hiding Games," *Springer-Verlag Lecture Notes in Computer Sciences*, Vol. 2613, 2003.
- P. Moulin, "Multiscale Image Decompositions and Wavelets," *Handbook of Image and Video Processing*. A. C. Bovik, Ed., Academic Press, 2000.
- K.O. Kortanek and P. Moulin, "Using Semi-Infinite Programming in Orthogonal Wavelet Filter Design," *Semi-Infinite Programming and Its Applications*, Kluwer Academic series on Nonconvex Optimization and its Applications, 1998.
- P. Moulin, J. A. O'Sullivan, and D. L. Snyder, "A Sieve-Constrained Maximum-Likelihood Method for Target Imaging," in *Radar and Sonar II*, Springer-Verlag, The IMA Volumes in Mathematics and Its Applications, Vol. 39, Eds. F. Grunbaum et al., pp. 95-122, 1992.
- P. Moulin, "Adaptive Multiresolution Image Restoration and Compression," in *IEEE Case Studies in Medical Instrument Design*, Eds. H. Troy Nagle and W.J. Tomkins, pp. 247-254, IEEE, New York, 1992.

### Conference Papers

- V. Tan and P. Moulin, "Second- and Higher-Order Asymptotics For Erasure and List Decoding," to appear in *Proc. ISIT*, 2014.
- Y.-W. Huang and P. Moulin, "Strong Large Deviations for Composite Hypothesis Testing," to appear in *Proc. ISIT*, 2014.
- S. D. Chen and P. Moulin, "A Two-Part Predictive Coder for Multitask Signal Compression," to appear in *Proc. ICASSP*, May 2014.
- R. Naini and P. Moulin, "Fingerprint Information Maximization for Content Identification," to appear in *Proc. ICASSP*, May 2014.
- P. Moulin and P. R. Johnstone, "Kullback-Leibler Divergence and the Central Limit Theorem," *Proc. ITA*, San Diego, CA, Feb. 2014.
- J. Lu, G. Wang, and P. Moulin, "Image set classification using holistic multiple order statistics features and localized multi-kernel metric learning," *IEEE International Conference on Computer Vision (ICCV)*, pp. 329-336, 2013.
- B. Ni and P. Moulin, "Manipulation Pattern Discovery: A Nonparametric Bayesian Approach," *ICCV*, 2013.
- P. Moulin, "Asymptotic Neyman-Pearson Games for Converse to the Channel Coding Theorem," *Proc. ISIT*, Istanbul, July 2013.
- P. R. Johnstone, A. Emad, P. Moulin, and O. Milenkovic, "RFIT: A New Algorithm for Matrix Completion," *Proc. SPARS*, Lausanne, Switzerland, July 2013.
- D. Sungatullina, J. Lu, G. Wang, and P. Moulin, "Multiview discriminative learning for age-invariant face recognition," *IEEE Int. Conf. on Automatic Face and Gesture Recognition*

niton, pp. 1–6, Shanghai, China, Apr. 2013.

H. Yu and P. Moulin, “Regularized Adaboost for Content identification,” *Proc. ICASSP*, Vancouver, Canada, May 2013.

H. Yu, P. Moulin and S. Roy, “RGB-D Video Content Identification,” *Proc. ICASSP*, Vancouver, Canada, May 2013.

D. Sungatullina, J. Lu, G. Wang, and P. Moulin, “Multiview Discriminative Learning for Age-Invariant Face Recognition,” *Proc. 10th IEEE International Conference on Automatic Face and Gesture Recognition*, Shanghai, China, Apr. 2013.

P. Moulin, “A New Metaconverse and Outer Region for Finite-Blocklength MACs,” *Proc. Information Theory and Applications (ITA) Workshop*, San Diego, CA, Feb. 2013.

A. Singh, N. Ahuja, P. Moulin, “Online learning with kernels: Overcoming the growing sum problem,” *Proc. IEEE Machine Learning for Signal Processing (MLSP)*, Santander, Spain, pp. 449-454, Sep. 2012.

B. Ni, M. Xu, J. Tang, S. Yan, and P. Moulin, “Omni-range spatial contexts for visual classification,” *Proc. CVPR*, pp. 3514-3521, Providence, RI, June 2012.

B. Ni, P. Moulin, S. Yan, “Order-Preserving Sparse Coding for Sequence Classification,” *Proc. ECCV* pp. 173-187, Providence, RI, June 2012.

B. Ni, N. C. Dat, P. Moulin, “RGBD-camera based get-up event detection for hospital fall prevention,” *Proc. ICASSP*, pp. 1405-1408, Kyoto, Japan, March 2012.

R. Dubey, B. Ni, and P. Moulin, “A Depth Camera Based Fall Recognition System for the Elderly,” *Proc. 9th Int. Conf. Image Analysis and Recognition (ICIAR)*, LNCS Vol. 7325, pp. 106-113, Aveiro, Portugal, June 2012.

P. Moulin, “The log-volume of optimal constant-composition codes for memoryless channels, within  $O(1)$  bits,” *Proc. ISIT*, pp. 826-830, Cambridge, MA, July 2012.

Y.-W. Huang and P. Moulin, “Finite blocklength coding for multiple access channels,” *Proc. ISIT*, pp. 831-835, Cambridge, MA, July 2012.

Y.-W. Huang and P. Moulin, “On fingerprinting capacity games for arbitrary alphabets and their asymptotics,” *Proc. ISIT*, pp. 2571-2575, Cambridge, MA, July 2012.

R. Naini and P. Moulin, “Real Adaboost for content identification,” *Proc. IEEE Stat. Signal Processing Workshop*, Ann Arbor, MI, Aug. 2012.

R. Naini and P. Moulin, “Model-based decoding metrics for content identification,” *Proc. ICASSP*, pp. 1829-1832, Kyoto, Japan, March 2012.

P. Moulin, “The log-volume of optimal codes for memoryless channels, Up to a Few Nats,” *Proc. Information Theory and Applications Workshop*, San Diego, CA, Feb. 2012.

B. Ni, G. Wang, and P. Moulin, “RGBD-HuDaAct: A color-depth video database for human daily activity recognition,” *Proc. 1st IEEE workshop on Consumer Depth Cameras for Computer Vision*, held in conjunction with *Int. Conf. on Computer Vision (ICCV) Workshop*, pp. 1147-1153, Barcelona, Nov. 2011.

S. Sadasivam and P. Moulin, “A Universal Divergence-Rate Estimator for Steganalysis in Timing Channels,” *Proc. 2nd Workshop on Information Security and Forensics*, Seattle, WA, Dec. 2010.



- Y.-W. Huang and P. Moulin, "On the Saddle-point Solution and the Large-Coalition Behavior of Fingerprinting Games," *Proc. 2nd Workshop on Information Security and Forensics*, Seattle, WA, Dec. 2010.
- R. Naini and P. Moulin, "Interference Management through Mobile Relays in Ad Hoc Networks," *Proc. ASILOMAR Conf.*, Pacific Grove, CA, Nov. 2010.
- G. Gigaud and P. Moulin, "A Geometrically Resilient SURF-Based Image Fingerprinting Scheme," *Proc. IEEE Int. Conf. Image Processing (ICIP)*, Hong Kong, Sep. 2010.
- G. Gigaud and P. Moulin, "Traitor Tracing Aided by Compressed SURF Features," *Proc. Conf. Info. Sci. and Sys.*, Princeton, NJ, March 2010.
- P. Moulin, "Statistical Modeling and Analysis of Content Identification and Retrieval," *Proc. Information Theory and Applications Workshop*, San Diego, CA, Feb. 2010.
- Y.-W. Huang and P. Moulin, "Capacity-Achieving Fingerprint Decoding," *Proc. 1st Workshop on Information Security and Forensics*, London, UK, Dec. 2009.
- S. Sadasivam and P. Moulin, "Combating Desynchronization Attacks on Blind Watermarking Systems: A Message Passing Approach," *Proc. ICIP*, Cairo, Egypt, Nov. 2009.
- I. Ezzeddine and P. Moulin, *Proc. IEEE Information Theory Workshop*, Taormina, Italy, Oct. 2009.
- S. D. Chen, V. Monga, and P. Moulin, "Meta-classifiers For Multimodal Document Classification," *Proc. IEEE Multimedia Signal Processing Workshop*, Rio de Janeiro, Brazil, Oct. 2009.
- Y.-W. Huang and P. Moulin, Saddlepoint Solution of the Fingerprinting Capacity Game under the Marking Assumption, *Proc. Int. Symp. Information Theory*, Seoul, Korea, July 2009.
- P. Moulin, "A Strong Converse for the Gel'fand-Pinsker Channel," *Proc. Int. Symp. Information Theory*, Seoul, Korea, July 2009.
- P. Moulin, "Optimal Gaussian Fingerprint Decoders" *Proc. ICASSP*, Taipei, Taiwan, Apr. 2009.
- P. Moulin and Y. Wang, "Information-Theoretic Analysis of Spherical Fingerprinting," *Proc. ITA Workshop*, San Diego, CA, Feb. 2009.
- M. El Choubassi and P. Moulin, "Joint Estimation-Detection Games for Sensitivity Analysis Attacks," *Proc. SPIE Conf.*, San Jose, CA, Jan. 2009.
- P. Moulin, "A Neyman-Pearson Approach to Universal Erasure and List Decoding," *Proc. IEEE Symp. Information Theory*, pp. 61–65, July 2008.
- P. Moulin, "Universal Fingerprinting: Capacity and Random-Coding Exponents," *Proc. IEEE Symp. Information Theory*, pp. 220–224, July 2008.
- J.-F. Jourdas and P. Moulin, "Towards Optimal Design of Multimedia Fingerprinting Codes," *Proc. ICASSP*, Las Vegas, NV, pp. 1649–1652, April 2008.
- J.-F. Jourdas and P. Moulin, "A Low-Rate Fingerprinting Code And Its Application To Blind Image Fingerprinting," *Proc. SPIE*, San Jose, CA, Jan. 2008.
- J.-F. Jourdas and P. Moulin, "A High-Rate Fingerprinting Code," *Proc. SPIE*, San Jose, CA, Jan. 2008.

- S. Sadasivam, P. Moulin, and R. Koetter, "Graphical Models for Desynchronization-Resilient Watermark Decoding," *Proc. IEEE Int. Conf. on Image Proc.*, San Antonio, TX, pp. V.477—480, Sep. 2007.
- M. El Choubassi and P. Moulin, "Sensitivity Analysis Attacks Against Randomized Detectors," *Proc. IEEE Int. Conf. on Image Proc.*, San Antonio, TX, pp. II.129—132, Sep. 2007.
- N. Kiyavash and P. Moulin, "Digital Fingerprinting: on Colluders Worst-Case Noise," *IEEE Workshop on Statistical Signal Processing*, Madison, WI, July 2007.
- P. Moulin and N. Kiyavash, "Expurgated Gaussian Fingerprinting Codes," *Proc. IEEE Int. Symp. on Information Theory*, Nice, France, June 2007.
- P. Moulin and N. Kiyavash, "Performance of Random Fingerprinting Codes Under Arbitrary Nonlinear Attacks," *Proc. ICASSP*, Honolulu, HI, pp. II.157—160, April 2007.
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J. Lu, G. Wang, and P. Moulin, “Learning hierarchical features for face recognition,” submitted to *CVPR*, 2014.

J. Lu, G. Wang, and P. Moulin, “Simultaneous feature learning and dictionary learning for video face recognition,” submitted to *CVPR*, 2014.

I. Fedorov and P. Moulin, “Kinect Depth Video Compression for Classification,” submitted to *IEEE Int. Conf. on Image Processing (ICIP)*, Feb. 2014.