

ALEKSANDAR DOGANDŽIĆ

Research interests

Statistical signal processing, sensor array and multichannel signal processing

Education

- 2001 Ph.D., Electrical Engineering and Computer Science (EECS), University of Illinois at Chicago (UIC)
- 1997 M.S., EECS, UIC
- 1995 Dipl. Ing., Electrical Engineering, University of Belgrade, Yugoslavia

Appointments held

- 2007-present Associate Professor, Electrical and Computer Engineering (ECpE), Iowa State University (ISU), Ames
- 2001-2007 Assistant Professor, ECpE, ISU, Ames
- 2001 Lecturer, EECS, UIC
- 1996, 1998-2000 Research Assistant, EECS, UIC
- 1995-1996 Teaching Assistant, EECS, UIC

Honors & awards

- 2006-2012 CAREER Award from the US National Science Foundation (NSF)
- 2006-2007 Litton Assistant Professor in Electrical and Computer Engineering, ISU, Ames
- 2006 IEEE Senior Member
- 2004 IEEE Signal Processing Magazine Best Paper Award
- 2003 IEEE Signal Processing Society Young Author Best Paper Award
- 2001 Outstanding Thesis in the Division of Engineering, Mathematics, and Physical Sciences, University of Illinois at Chicago
- 1996 Distinguished Electrical Engineering M.S. Student Award by the Chicago Chapter of the IEEE Communications Society
- 1995 *Summa cum laude*, School of Electrical Engineering, University of Belgrade, Yugoslavia

Publications

Journal articles

- [27] P. Gy and A. Dogandžić, “Projected Nesterov’s proximal-gradient algorithm for sparse signal recovery,” *IEEE Trans. Signal Process.*, vol. 65, no. 13, pp. 3510–3525, 2017.

- [26] P. Гу and A. Доганџић, “Blind X-ray CT image reconstruction from polychromatic Poisson measurements,” *IEEE Trans. Comput. Imag.*, vol. 2, no. 2, pp. 150–165, 2016.
- [25] Ц. Сонг and A. Доганџић, “A max-product EM algorithm for reconstructing Markov-tree sparse signals from compressive samples,” *IEEE Trans. Signal Process.*, vol. 61, no. 23, pp. 5917–5931, 2013.
- [24] K. Чиоу and A. Доганџић, “Sparse signal reconstruction from quantized noisy measurements via GEM hard thresholding,” *IEEE Trans. Signal Process.*, vol. 60, pp. 2628–2634, May 2012.
- [23] K. Чиоу and A. Доганџић, “Sparse signal reconstruction via ECME hard thresholding,” *IEEE Trans. Signal Process.*, vol. 60, pp. 4551–4569, Sep. 2012.
- [22] K. Чиоу and A. Доганџић, “Variance-component based sparse signal reconstruction and model selection,” *IEEE Trans. Signal Process.*, vol. 58, pp. 2935–2952, Jun. 2010.
- [21] A. Доганџић and K. Чиоу, “Decentralized random-field estimation for sensor networks using quantized spatially correlated data and fusion-center feedback,” *IEEE Trans. Signal Process.*, vol. 56, pp. 6069–6085, Dec. 2008.
- [20] E. Серпедин, X. Ли, A. Доганџић, X. Даи, and П. Корас, “Distributed signal processing techniques for wireless sensor networks,” *EURASIP J. Adv. Signal Process.*, 2008.
- [19] A. Доганџић and Б. Џанг, “Bayesian complex amplitude estimation and adaptive matched filter detection in low-rank interference,” *IEEE Trans. Signal Process.*, vol. 55, pp. 1176–1182, Mar. 2007.
- [18] A. Доганџић and Б. Џанг, “Bayesian NDE defect signal analysis,” *IEEE Trans. Signal Process.*, vol. 55, pp. 372–378, Jan. 2007.
- [17] B. Мо, Ц. Ванг, and A. Доганџић, “EM-based iterative receiver for coded MIMO systems in unknown spatially correlated noise,” *Wirel. Commun. Mob. Comput.*, vol. 7, pp. 81–89, Jan. 2007.
- [16] Ђ. Ванг, A. Доганџић, and A. Нехорай, “Maximum likelihood estimation of compound-Gaussian clutter and target parameters,” *IEEE Trans. Signal Process.*, vol. 54, pp. 3884–3898, Oct. 2006.
- [15] D. Гутиерез, A. Нехорай, and A. Доганџић, “Performance analysis of reduced-rank beamformers for estimating dipole source signals using EEG/MEG,” *IEEE Trans. Biomed. Eng.*, vol. 53, pp. 840–844, May 2006.
- [14] A. Доганџић and Б. Џанг, “Distributed estimation and detection for sensor networks using hidden Markov random field models,” *IEEE Trans. Signal Process.*, vol. 54, pp. 3200–3215, Aug. 2006.
- [13] A. Доганџић, J. Рибa, G. Секо, and A. Свиндлхурст, “Positioning and navigation with applications to communications,” *IEEE Signal Process. Mag.*, vol. 22, no. 4, pp. 10–11, Jul. 2005.
- [12] A. Доганџић and Ђ. Ђин, “Estimating statistical properties of MIMO fading channels,” *IEEE Trans. Signal Process.*, vol. 53, no. 8, pp. 3065–3080, Aug. 2005.

- [11] А. Доганџић and Б. Џанг, “Dynamic shadow-power estimation for wireless communications,” *IEEE Trans. Signal Process.*, vol. 53, pp. 2942–2948, Aug. 2005.
- [10] А. Доганџић and Б. Џанг, “Estimating Jakes’ Doppler power spectrum parameters using the whittle approximation,” *IEEE Trans. Signal Process.*, vol. 53, pp. 987–1005, Mar. 2005.
- [9] А. Доганџић and П. Шианг, “Estimating statistical properties of eddy-current signals from steam generator tubes,” *IEEE Trans. Signal Process.*, vol. 53, pp. 3342–3348, Aug. 2005.
- [8] А. Доганџић and Ђ. Ђин, “Maximum likelihood estimation of statistical properties of composite gamma-lognormal fading channels,” *IEEE Trans. Signal Process.*, vol. 52, pp. 2940–2945, Oct. 2004.
- [7] А. Доганџић, В. Мо, and Џ. Ванг, “Semi-blind SIMO flat-fading channel estimation in unknown spatially correlated noise using the EM algorithm,” *IEEE Trans. Signal Process.*, vol. 52, pp. 1791–1797, Jun. 2004.
- [6] А. Доганџић, “Chernoff bounds on pairwise error probabilities of space-time codes,” *IEEE Trans. Inf. Theory*, vol. 49, pp. 1327–1336, May 2003.
- [5] А. Доганџић and А. Нехораи, “Generalized multivariate analysis of variance: A unified framework for signal processing in correlated noise,” *IEEE Signal Process. Mag.*, vol. 20, pp. 39–54, Sep. 2003.
- [4] А. Доганџић and А. Нехораи, “Finite-length MIMO equalization using canonical correlation analysis,” *IEEE Trans. Signal Process.*, vol. 50, no. 4, pp. 984–989, 2002.
- [3] А. Доганџић and А. Нехораи, “Space-time fading channel estimation and symbol detection in unknown spatially correlated noise,” *IEEE Trans. Signal Process.*, vol. 50, no. 3, pp. 457–474, 2002.
- [2] А. Доганџић and А. Нехораи, “Cramér-Rao bounds for estimating range, velocity, and direction with an active array,” *IEEE Trans. Signal Process.*, vol. 49, no. 6, pp. 1122–1137, 2001.
- [1] А. Доганџић and А. Нехораи, “Estimating evoked dipole responses in unknown spatially correlated noise with EEG/MEG arrays,” *IEEE Trans. Signal Process.*, vol. 48, no. 1, pp. 13–25, 2000.

Electronic publications

- [1] Р. Гу and А. Доганџић. (Feb. 2017). Upper-bounding the regularization constant for convex sparse signal reconstruction. arXiv: 1702.07930 [stat.CO].

Book chapter

- [1] А. Доганџић and А. Нехораи, “EEG/MEG spatio-temporal dipole source estimation and sensor array design,” *High-Resolution and Robust Signal Processing*, J. Хуа, А. Б. Гершман, and Ч. Ченг, Eds., Њујорк: Marcel Dekker, 2003, pp. 393–442.

Conference papers

- [54] P. Гу and A. Доганџић, “Blind beam-hardening correction from Poisson measurements,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. Е. Ђименти and Л. Ј. Бонд, Eds., ser. AIP Conf. Proc. Vol. 35 1706, Мелвил, Њујорк, 2016, 110010.
- [53] P. Гу and A. Доганџић, “Blind polychromatic X-ray CT reconstruction from Poisson measurements,” *IEEE Int. Conf. Acoust., Speech, Signal Process.*, Шангај, Кина, Мар. 2016, pp. 898–902.
- [52] Ш. Сонг, Ј. Ли, and A. Доганџић, “Atomic library optimization for sparse pulse ultrasonic signal decomposition and reconstruction,” *Rev. Prog. Quant. Nondestr. Eval.*, ser. AIP Conf. Proc. Vol. 35 1706, Мелвил, Њујорк, 2016, 180008.
- [51] P. Гу and A. Доганџић, “Polychromatic sparse image reconstruction and mass attenuation spectrum estimation via B-spline basis function expansion,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. Е. Ђименти and Л. Ј. Бонд, Eds., ser. AIP Conf. Proc. Vol. 34 1650, Мелвил, Њујорк, 2015, pp. 1707–1716.
- [50] P. Гу and A. Доганџић, “Projected Nesterov’s proximal-gradient signal recovery from compressive Poisson measurements,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2015, pp. 1490–1495.
- [49] P. Гу and A. Доганџић, “A fast proximal gradient algorithm for reconstructing non-negative signals with sparse transform coefficients,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2014, pp. 1662–1667.
- [48] P. Гу and A. Доганџић, “Sparse signal reconstruction from polychromatic X-ray CT measurements via mass attenuation discretization,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон, Д. Е. Ђименти, and Л. Ј. Бонд, Eds., ser. AIP Conf. Proc. Vol. 33 1581, Мелвил, Њујорк, 2014, pp. 1848–1855.
- [47] P. Гу and A. Доганџић, “Beam hardening correction via mass attenuation discretization,” *IEEE Int. Conf. Acoust., Speech, Signal Process.*, Ванкувер, Канада, Мај 2013, pp. 1085–1089.
- [46] P. Гу and A. Доганџић, “Sparse X-ray CT image reconstruction and blind beam hardening correction via mass attenuation discretization,” *IEEE Int. Workshop Comput. Advances Multi-Sensor Adaptive Process.*, Свети Мартин, Француски Антили, Дец. 2013, pp. 244–247.
- [45] A. Доганџић, P. Гу, and K. Чиоу, “Algorithms for sparse X-ray CT image reconstruction of objects with known contour,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон and Д. Е. Ђименти, Eds., ser. AIP Conf. Proc. Vol. 31, Мелвил, Њујорк, 2012, 597–604.
- [44] Ц. Сонг and A. Доганџић, “A Bayesian max-product EM algorithm for reconstructing structured sparse signals,” *Conf. Inform. Sci. Syst.*, Принстон, Њу Џерси, Мар. 2012, pp. 1–6.
- [43] Ц. Сонг and A. Доганџић, “Image reconstruction from compressive samples via a max-product EM algorithm,” *Applications of Digital Image Processing XXXV*, А. Г. Тешер, Ed., ser. Proc. SPIE Optics & Photonics, vol. 8499, Сан Дијего, Калифорнија: SPIE, Aug. 2012, 849907.

- [42] А. Доганџић, Р. Гу, and К. Чиоу, “Mask iterative hard thresholding algorithms for sparse image reconstruction of objects with known contour,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2011, pp. 2111–2116.
- [41] К. Чиоу and А. Доганџић, “A GEM hard thresholding method for reconstructing sparse signals from quantized noisy measurements,” *IEEE Int. Workshop Comput. Advances Multi-Sensor Adaptive Process.*, Сан Хуан, Порторико, Dec. 2011, pp. 349–352.
- [40] К. Чиоу and А. Доганџић, “Nonnegative signal reconstruction from compressive samples via a difference map ESME algorithm,” *IEEE Workshop Stat. Signal Process.*, Ница, Француска, Jun. 2011, pp. 561–564.
- [39] К. Чиоу and А. Доганџић, “Sparse X-ray CT image reconstruction using ESME hard thresholding methods,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон and Д. Е. Ђименти, Eds., ser. AIP Conf. Proc. Vol. 30, Мелвил, Њујорк, 2011, pp. 469–476.
- [38] А. Доганџић and К. Чиоу, “Automatic hard thresholding for sparse signal reconstruction from NDE measurements,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон and Д. Е. Ђименти, Eds., ser. AIP Conf. Proc. Vol. 29, Мелвил, Њујорк, 2010, pp. 806–813.
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- [36] К. Чиоу and А. Доганџић, “ESME hard thresholding methods for image reconstruction from compressive samples,” *Applications of Digital Image Processing XXXIII*, А. Г. Тешер, Ed., ser. Proc. SPIE Optics & Photonics, vol. 7798, Сан Дијего, Калифорнија: SPIE, Aug. 2010, 779813.
- [35] А. Доганџић and К. Чиоу, “ExCoV: Expansion-compression variance-component based sparse-signal reconstruction from noisy measurements,” *Conf. Inform. Sci. Syst.*, Балтимор, Мериленд, Mar. 2009, pp. 186–191.
- [34] А. Доганџић and К. Чиоу, “Estimating a random field in sensor networks using quantized spatially correlated data,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2008, pp. 1943–1947.
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- [31] А. Доганџић and Б. Џанг, “Bayesian defect signal analysis,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон and Д. Е. Ђименти, Eds., ser. AIP Conf. Proc. Vol. 25, Мелвил, Њујорк, 2006, pp. 617–624.
- [30] А. Доганџић and Б. Џанг, “Complex signal amplitude estimation and adaptive detection in unknown low-rank interference,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2006, pp. 2232–2236.

- [29] Ђ. Ванг, А. Доганџић, and А. Нехораи, “Cramér-Rao bounds for compound-Gaussian clutter and target parameters,” *IEEE Int. Conf. Acoust., Speech, Signal Process.*, Филадельфија, Пенсилванија, Мај 2005, pp. 1101–1104.
- [28] А. Доганџић, Н. Уа-Анант, and Б. Џанг, “Defect detection using hidden Markov random fields,” *Rev. Prog. Quant. Nondestr. Eval.*, Д. О. Томпсон and Д. Е. Ђименти, Eds., ser. AIP Conf. Proc. Vol. 24, Мелвил, Њујорк, 2005, pp. 704–711.
- [27] А. Доганџић and Б. Џанг, “Distributed mean-field estimation and detection in correlated Gaussian random fields using sensor networks,” *Allerton Conf. Commun., Contr., Comput.*, Монтичело, Илиноис, Сеп. 2005, pp. 866–875.
- [26] А. Доганџић and Б. Џанг, “Distributed signal processing for sensor networks using hidden Markov random fields,” *Conf. Inform. Sci. Syst.*, Балтимор, Мериленд, Мај 2005.
- [25] А. Доганџић and Б. Џанг, “Event-region estimation for sensor networks under the Poisson regime,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2005, pp. 1571–1575.
- [24] А. Доганџић and Б. Џанг, “Parametric signal estimation using sensor networks in the presence of node localization errors,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 2005, pp. 951–955.
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- [7] А. Доганџић and А. Нехорай, “EEG/MEG spatio-temporal dipole source estimation in unknown spatially correlated noise,” *ISCIE Int. Symp. Stochastic Systems Theory and Its Applications*, Јокохама, Јапан, Nov. 1999, pp. 1–6.
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- [1] A. Доганџић and A. Нехорай, “Detecting a dipole source by MEG/EEG and generalized likelihood ratio tests,” *Asilomar Conf. Signals, Syst. Comput.*, Пацифик Гроув, Калифорнија, Nov. 1996, pp. 1196–1200.

Graduate students

1. Rahul Singh, Ph.D., August 2016–present;
2. Anindya Bijoy Das, Ph.D., August 2016–present;
3. Renliang Gu, Ph.D., August 2010–May 2017, “Convex-set-constrained sparse signal recovery: Theory and applications,” now with Google, Mountain View, CA;
4. Zhao Song, M.S., Aug. 2010–2012;
5. Kun Qiu, Ph.D., August 2006–May 2011, “Expectation maximization hard thresholding methods for sparse signal reconstruction”, now a Data Scientist at Accenture, San Diego, CA;
6. Glaucio G. de Oliveira, M.S., (Degang Chen, co-adviser), off-campus, 2007–2011, with Cummins Power Generation, Minneapolis, MN;
7. Lizandro D. Solano-Quinde, M.S., Aug. 2004–2006, Professor at Univ. Cuenca, Ecuador.
8. Benhong Zhang, Ph.D., August 2002–June 2006, “Spatial signal processing in wireless sensor networks”, now a Senior Vice President, Senior Quantitative Analyst at Bank of America, Charlotte, NC;
9. Jinghua Jin, August 2001–April 2006, Ph.D., (Yao Ma, co-adviser), “Diversity receiver design and channel statistic estimation in fading channels”, now with GE Healthcare, Waukesha, WI;
10. Ping Xiang, Ph.D., 2002–June 2005, “Automatic multi-frequency rotating-probe eddy-current data analysis”, granted July 2005, now with TeraRecon Inc, Boston, MA.
11. Nawanat Eua-Anant, M.S., 2001–2004, now with Electricity Generating Authority, Khon Kaen, Thailand.
12. Prihamdhani P. Amran, M.S., 2002–2004;
13. Carlos J. Chávez, M.S., 2001–2003, with Rockwell Collins, Cedar Rapids, IA.

Service to the profession

Editorship

- 2015–present, Senior Area Editor for *IEEE Transactions on Signal Processing*;
- 2014–present, Associate Editor for *IEEE Transactions on Signal and Information Processing over Networks*;
- Associate Editor for *IEEE Signal Processing Letters*, 2008–2013.
- Associate Editor for *IEEE Transactions on Signal Processing*, 2006–2010.
- Guest Editor for *IEEE Signal Processing Magazine*, Special Issue on Signal Processing for Positioning and Navigation with Applications to Communications, July 2005, with J. Riba, G. Seco, and A. L. Swindlehurst.
- Guest Editor for *EURASIP Journal on Applied Signal Processing*, Special Issue on Distributed Signal Processing Techniques for Wireless Sensor Networks, 2008, with E. Serpedin, H. Li, H. Dai, and P. Cotae.
- Associate Editor for *International Journal of Navigation and Observation*, 2006–present.

Conferences

- Technical co-chair, The Ninth IEEE Sensor Array and Multichannel (SAM) Signal Processing Workshop, Rio de Janeiro, Brazil, Jul. 2016.
- Technical co-chair, The Eighth IEEE SAM Signal Processing Workshop, A Coruña, Spain, Jun. 2014.
- General co-chair, The Fifth IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP), Saint Martin, French West Indies, Dec. 2013.
- General co-chair, The Fourth IEEE CAMSAP Workshop, San Juan, PR, Dec. 2011.
- Area Chair for Signal Processing Theory and Methods, 2015 European Signal Processing Conference (EUSIPCO), Nice, France.
- Area Chair for the 2016 IEEE Statistical Signal Processing (SSP) Workshop, Palma de Mallorca, Spain.
- Technical program committees
 - 2007–present, IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), through Institute of Electrical and Electronics Engineers (IEEE) SAM and Signal Processing Theory and Methods (SPTM) technical committees;
 - The 2018 IEEE International Conference on Communications (ICC), Wireless Communications Symposium, Kansas City, MO;
 - The 2018 Wireless Communications and Networking Conference (WCNC), Barcelona, Spain;

- The 2017 CAMSAP, Curaçao, Dutch Antilles;
- The 2017 EUSIPCO, Kos Island, Greece;
- The 2017 WCNC, San Francisco, CA;
- The 2016 EUSIPCO, Budapest, Hungary;
- The 2016 WCNC, Doha, Qatar;
- The 2015 IEEE ICC, Wireless Communications Symposium, London, UK;
- The 2015 Information Technology Society (ITG) International Workshop on Smart Antennas (WSA), Ilmenau, Germany;
- The 2015 WCNC, New Orleans, LA;
- The 2014 IEEE Global Communications Conference (GLOBECOM), Signal Processing for Communications Symposium, Austin, TX;
- The 2014 EUSIPCO, Lisbon, Portugal;
- The 2014 IEEE WCNC, Istanbul, Turkey, Apr. 2014.
- The Tenth International Symposium on Wireless Communication Systems (ISWCS), Ilmenau, Germany, Aug. 2013,
- The 2013 IEEE WCNC, Shanghai, China, Apr. 2013.
- The 2012 EUSIPCO,
- The IEEE SSP Workshop, Ann Arbor, MI, Aug. 2012,
- The Seventh IEEE SAM Signal Processing Workshop, Hoboken, NJ, Jun. 2012,
- The Fourth IEEE CAMSAP Workshop, San Juan, PR, Dec. 2011,
- The 73rd IEEE Vehicular Technology Conference (VTC) Spring, Budapest, Hungary, May 2011,
- The Sixth IEEE SAM Signal Processing Workshop, Kibbutz Ma’ale Hahamisha, Israel, Oct. 2010,
- The Seventh ISWCS, York, United Kingdom, Sept. 2010,
- The 71st IEEE VTC Spring, Taipei, Taiwan, Apr. 2010,
- The 69th IEEE VTC Spring, Barcelona, Spain, Apr. 2009,
- The Fifth IEEE SAM Signal Processing Workshop, Darmstadt, Germany, Jul. 2008,
- The 2008 IEEE Radar Conference, Rome, Italy,
- The 66th IEEE VTC Fall, Baltimore MD, Oct. 2007,
- The 2006 EUSIPCO.

- Session chair

- Emerging SAM Applications, *IEEE ICASSP*, Shanghai, China, March 2016;
- Processing of Electro-Physiological Signals, *IEEE ICASSP*, Shanghai, China, March 2016;
- Biomedical Signal Reconstruction, Processing, and Analysis, *IEEE ICASSP*, Shanghai, China, March 2016;

- Sparsity in Signal Processing, *49th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 2015;
 - Signal Processing and New Techniques, *42nd Annu. Review Progress Quantitative Nondestructive Evaluation*, Minneapolis, MN, Jul. 2015;
 - Compressed Sensing I, *48th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 2014;
 - Signal Processing, *40th Annu. Review Progress Quantitative Nondestructive Evaluation*, Baltimore, MD, Jul. 2013;
 - Signal and System Modeling and Estimation II, *IEEE ICASSP*, Kyoto, Japan, March 2012,
 - Sensor Networks and Distributed Estimation, *IEEE ICASSP*, Kyoto, Japan, March 2012,
 - Compressive Imaging and Detection, *45th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 2011,
 - Detection and Estimation Theory II, *IEEE SSP Workshop*, Nice, France, June 2011,
 - Sensor Networks II: Distributed Estimation, *IEEE ICASSP*, Dallas, TX, March 2010,
 - Inversion, Reconstruction, and Characterization, *36th Annu. Review Progress Quantitative Nondestructive Evaluation (QNDE)*, Kingston, RI, Jul. 2009,
 - Sensor Array Processing, *ICASSP*, Honolulu, HI, April 2007,
 - Flaw Imaging and Characterization, *33rd QNDE*, Portland, OR, Aug. 2006,
 - Image and Signal Analysis, *32nd QNDE*, Bowdoin College, Brunswick, ME, Aug. 2005.
- Session organizer and chair
 - Low Rank Matrix Approximation, *The Sixth IEEE SAM Signal Processing Workshop*, Kibbutz Ma’ale Hahamisha, Israel, Oct. 2010,
 - Detection and Estimation, *41st Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 2007.

Professional committees & panels

- Member of the SAM Technical Committee of the IEEE Signal Processing Society, 2007–2013, where I served as
 - Chair of the Nominations and Elections Subcommittee of the SAM Technical Committee, 2011–2012,
 - Chair of the Detection and Estimation Theory (DET) subcommittee of the SAM Technical Committee, 2012.
- Member of the SPTM Technical Committee of the IEEE Signal Processing Society, 2011–2016.
- Panel reviewer for the NSF, Computer & Information Science & Engineering (CISE), 2006, 2007, 2009, 2010, 2013, 2015, 2016, and 2017.

Recent invited talks

1. “Projected Nesterov’s proximal-gradient algorithm for sparse signal recovery,” National University of La Plata, Argentina, Nov. 2016.
2. “Blind beam-hardening correction from Poisson measurements,” Center for Research and Advanced Studies (CINVESTAV), Monterrey, Mexico, Aug. 2016.
3. “Projected Nesterov’s proximal-gradient algorithm for sparse signal recovery,” Telecommunications for Space and Aeronautics (TéSA) Lab, Toulouse, France, May 2016.
4. “Blind beam-hardening correction from Poisson measurements,” Department of Instrument Science and Engineering, Jiangsu University, Zhenjiang, China, Mar. 2016.
5. “Projected Nesterov’s proximal-gradient algorithm and sparse tomographic signal reconstruction,” School of Telecommunications Engineering, Xidian University, Xi’an, China, Mar. 2016.
6. “Projected Nesterov’s proximal-gradient signal recovery from compressive Poisson measurements,” Department of Electrical and Systems Engineering, Washington University in St. Louis, Dec. 2015;
7. “Blind beam-hardening correction from Poisson measurements,” Department of Electrical and Systems Engineering, Washington University in St. Louis, Aug. 2015;
8. “A max-product EM algorithm for reconstructing Markov-tree sparse signals from compressive samples,” Technische Universität Ilmenau, Germany, Jun. 2013;
9. “A max-product EM algorithm for reconstructing Markov-tree sparse signals from compressive samples,” MINES ParisTech, Fontainebleau, France, Jun. 2013;
10. “A max-product EM algorithm for reconstructing Markov-tree sparse signals from compressive samples,” Department of Electronics, University of York, UK, Jun. 2013;
11. “Image reconstruction from compressive samples via a max-product EM algorithm,” Department of Electrical and Systems Engineering, Washington University in St. Louis, Aug. 2012;
12. “ECME thresholding methods for sparse signal reconstruction,” Dipartimento di Ingegneria Biomedica Elettronica e delle Telecomunicazioni, Università Federico II, Napoli, Italy, May 2012;
13. “Sparse X-ray CT image reconstruction using ECME hard thresholding methods,” Department of Electrical Engineering and Computer Science, Polytechnic University of Puerto Rico, Mar. 2011;
14. “ECME thresholding methods for sparse signal reconstruction,” Departament de Comunicació i Enginyeria de Sistemes, Universitat Autònoma de Barcelona, Spain, June 2010;
15. “ECME thresholding methods for sparse signal reconstruction,” Laboratoire Fizeau, Université de Nice Sophia-Antipolis, France, May 2010;

16. “ECME thresholding methods for sparse signal reconstruction,” Department of Electrical and Systems Engineering, Washington University in St. Louis, May 2010.
17. ExCoV: Expansion-compression variance-component based sparse-signal reconstruction from noisy measurements,” Department of Electrical and Computer Engineering, George Washington University, Washington, DC, Mar. 2009.

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