

For jointly authored papers, the bibliographic details appear only once.

1 ARTICLES IN REFEREED PUBLICATIONS:

ARBEL, TAL:

- [1] A. Carass, S. Roy, A. Jog, J. L. Cuzzocreo, E. Magrath, A. Gherman, J. Button, J. Nguyen, F. Prados, C. H. Sudre, M. J. Cardoso, N. Cawley, O. Ciccarelli, C. A. M. Wheeler-Kingshott, S. Ourselin, L. Catanese, H. Deshpande, P. Maurel, O. Commowick, C. Barillot, X. Tomas-Fernandez, S. K. Warfield, S. Vaidya, A. Chundururu, R. Muthuganapathy, G. Krishnamurthi, A. Jesson*, T. Arbel, O. Maier, H. Handels, L. O. Itheme, D. Unay, S. Jain, D. M. Sima, D. Smeets, M. Ghafoorian, B. Platel, A. Birenbaum, H. Greenspan, P. L. Bazin, P. A. Calabresi, C. M. Crainiceanu, L. M. Ellingsen, D. S. Reich, J. L. Prince, D. L. Pham, "Longitudinal Multiple Sclerosis Lesion Segmentation: Resource & Challenge", *NeuroImage*, 148, pp. 77-102, January 2017.
- [2] A. Doyle*, D. Precup, D.L. Arnold, T. Arbel, "Predicting Future Disease Activity and Treatment Responders for Multiple Sclerosis Patients using a Bag-of-Lesions Brain Representation", in *Proceedings of the 20th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2017)*, Quebec City, Quebec, Canada, September 2017, *Lecture Notes in Computer Science*, Springer, Vol. 10435, pp. 186-194.
- [3] Q. Tian*, T. Arbel, J.J. Clark, "Deep LDA-Pruned Nets for Efficient Facial Gender Classification", in *Proceedings of the IEEE Computer Society Workshop on Biometrics held in conjunction with the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2017)*, Honolulu, Hawaii, U.S.A., July 2017.

BAJCSY JAN:

- [4] Y. Feng*, J. Bajcsy, "Information rate of multi-antenna spectrally-efficient FDM communication, *Proc. IEEE Canadian Workshop on Information Theory*, 5 pages, Quebec City, QC, June 2017.
- [5] T. Fagorusi*, Y. Feng*, J. Bajcsy, "An architecture for non-orthogonal multi-carrier faster-than-nyquist transmission," *Proc. IEEE Canadian Workshop on Information Theory*, 5 pages, Quebec City, QC, June 2017.
- [6] S. A. Khan*, J. Bajcsy, Y. Feng*, "Benefits of sparse signaling in asynchronous multi-access channel communication," *Benefits of sparse signaling in asynchronous multi-access channel communication*. 4 pages, Montreal, QC, August 2017.
- [7] T. Fagorusi*, Y. Feng*, Jan Bajcsy. "On the Merit of Pre-coding in a Coded Faster-than-Nyquist Transmission System," *Proc. of IEEE Wireless Communications and Networking Conference*, 2 pages, March 2017.
- [8] Y. Feng*, D. Rainnie*, J. Bajcsy, "Information Rates of Spectrally-Efficient FDM with Faster-Than-Nyquist Transmission," *Proc. of IEEE Wireless Communications and Networking Conference*, 2 pages, March 2017.

BHADRA, SHARMISTHA:

- [9] D. K. Dominic, S. Krafft, N. Safdari and S. Bhadra, "Multiresonator-based printable chipless RFID for relative humidity sensing," in *Proc. Eurosensors*, pp. 367- 370, Sept. 2017.
- [10] S. Bhadra, and K. Walus, "Polymer based thickness shear mode acoustic resonator for sensing of fluid complex shear modulus," in *Proc. Transducers*, pp. 986-989, June 2017.

BOUFFARD, FRANCOIS:

- [11] M. Quashie*, F. Bouffard and G. Joós, "Business Cases for Isolated and Grid-Connected Microgrids: Methodologies and Applications," *Applied Energy*, vol. 205, pp. 105–115, Nov. 2017.
- [12] H. Nosair* and F. Bouffard, "Power System Planning Under Uncertainty: The Probabilistic Envelopes Approach," *IEEE Trans. Power Syst.*, vol. 32, no. 3, pp. 1701–1710, May 2017.
- [13] A. Abiri-Jahromi* and F. Bouffard, "On the Loadability Sets of Power Systems—Part I: Characterization," *IEEE Trans. Power Syst.*, vol. 32, no. 1, pp. 137–145, Jan. 2017.
- [14] A. Abiri-Jahromi* and F. Bouffard, "On the Loadability Sets of Power Systems—Part II: Minimal Representations," *IEEE Trans. Power Syst.*, vol. 32, no. 1, pp. 146–156, Jan. 2017.
- [15] C. Marnay, M. Quashie*, G. Balint* and F. Bouffard, "Microgrid Analysis of a Campus Medical Building," in *Proc. 7th Innovative Smart Grid Technologies Conf. Asia*, Auckland, New Zealand, Oct. 2017.
- [16] Y. Huo*, F. Bouffard and G. Joós, "An Energy Management Approach for Electric Vehicle Fast Charging Station," in *Proc. 2017 IEEE Electrical Power and Energy Conf.*, Saskatoon, SK, Oct. 2017.

- [17] C. Sun*, G. Joós and F. Bouffard, "Control of Microgrids with Distributed Energy Storage Operating in Islanded Mode," in Proc. 2017 IEEE Electrical Power and Energy Conf., Saskatoon, SK, Oct. 2017.
- [18] S. Ahmed* and F. Bouffard, "An Online Framework for Integration of Demand Response in Residential Load Management," in Proc. 2017 IEEE Electrical Power and Energy Conf., Saskatoon, SK, Oct. 2017.
- [19] S. Ahmed* and F. Bouffard, "Building Load Management Clusters Using Reinforcement Learning," in Proc. IEEE IEMCON 2017, Vancouver, BC, Oct. 2017.

BOULET, BENOIT:

- [20] P Maghoul, B Boulet, A Tardif, A Haidar, Computer Simulation Model to Train Medical Personnel on Glucose Clamp Procedures, Canadian Journal of Diabetes. 41(5), 485-490, 2017.
- [21] D Wu, H Zeng, C Lu, B Boulet, Two-Stage Energy Management for Office Buildings With Workplace EV Charging and Renewable Energy. IEEE Transactions on Transportation Electrification 3 (1), 225-237, 2017.
- [22] Mousavi, M. S. R., Alizadeh, H. V., Boulet, B., Estimation of Synchronmesh Frictional Torque and Output Torque in a Clutchless Automated Manual Transmission of a Parallel Hybrid Electric Vehicle, IEEE Trans. on Vehicular Technology, 66 (7), pp. 5531-5539, 2017.
- [23] D. Wu, B. Wang, D. Precup, B. Boulet, Boosting Based Multiple Kernel Learning and Transfer Regression for Electricity Load Forecasting. Joint European Conference on Machine Learning and Knowledge Discovery in Databases, Skopje, Macedonia, 18-22 September 2017, pp. 39-51.

CAINES, PETER E:

- [24] D. Firoozi,* and P. E. Caines. "The Execution Problem in Finance with Major and Minor Traders: A Mean Field Game Formulation", Advances in Dynamic and Mean Field Games, Annals of the International Society of Dynamic Games, 15. J. Apaloo, B. Viscolani (eds.), 2017, pp. 107 – 130
- [25] P.E. Caines, Contribution in "Systems and Control for the future of humanity, research agenda: Current and future roles, impact and grand challenges", Annual Reviews in Automatic Control, 43, 2017, pp. 1---64
- [26] A.Pakniyat* and P. E. Caines, "On the Minimum Principle and Dynamic Programming for Classical and Hybrid Control Systems", IEEE Trans.on Automatic Control Sept. 2017, Volume: 62, No. 9, pp 4347-4362
- [27] P. E. Caines and A.C. Kizilkale*, "epsilon-Nash Equilibria for Partially Observed LQG Mean Field Games with Major Player", IEEE Trans. on Automatic Control, July, 2017, Vol 62, no.7 pp. 3225-3234
- [28] M. Helwa* and P. E. Caines, "In-Block Controllability of Affine Systems on Polytopes", IEEE Trans. on Automatic Control, June, 2017, Vol 62, No. 6, pp. 2950-2957
- [29] A. Pakniyat* and P.E.Caines, "Hybrid Optimal Control of an Electric Vehicle with a Dual-Planetary Transmission", Nonlinear Analysis - Hybrid Systems, 2017, Vol 25, pp. 263 - 282
- [30] M. Aziz* and P. E. Caines, "A Mean Field Games Computational Methodology for Decentralized Cellular Network Optimization," IEEE Trans. on Control Systems Technology, March, 2017, pp. 563 -576 <http://ieeexplore.ieee.org/abstract/document/7482763/> (on line, 2016)
- [31] P.E. Caines, M.Y. Huang* and Roland Malhame', "Mean Field Games", Springer Handbook on Dynamic Game Theory, Eds. T. Basar, G. Zaccour, On line 2 June 2017: SpringerLink doi:10.1007 978-3-319-27335-8 7-1
- [32] D. Firoozi* and P. E. Caines, " An Optimal Execution Problem in Finance Targeting the Market Trading Speed: an MFG Formulation", 56th IEEE Conference on Decision and Control, Melbourne, Australia, December, 2017, pp 7 - 14
- [33] D. Firoozi*, A. Pakniyat * and P. E. Caines, "A Mean Field Game - Hybrid Systems Approach to Optimal Execution Problems in Finance with Stopping Times", 56th IEEE Conference on Decision and Control, Melbourne, Australia, December, 2017, pp 3144 - 3151
- [34] S. Gao* and P. E. Caines, "The Control of Arbitrary Size Networks of Linear Systems via Graphon Limits: An Initial Investigation", 56th IEEE Conference on Decision and Control, Melbourne, Australia, December, 2017, pp 1052 - 1057
- [35] D. Firoozi* and P. E. Caines, "An Optimal Execution Problem in Finance with Acquisition and Liquidation Objectives: an MFG Formulation", IFAC World Congress, Toulouse, July 2017. IFAC-PapersOnLine, Volume 50, Issue 1, 2017, Pages 4960-4967, ISSN 2405-8963, <https://doi.org/10.1016/j.ifacol.2017.08.760>
- [36] A. Pakniyat*, and P. E. Caines, "A Class of Linear Quadratic Gaussian Hybrid Optimal Control Problems with Realization-Independent Riccati Equations", IFAC World Congress, Toulouse, July 2017. IFAC-PapersOnLine, Volume 50, Issue 1, 2017, Pages 2205-2210, ISSN 2405-8963, <https://doi.org/10.1016/j.ifacol.2017.08.282>
- [37] S. Gao* and P. E. Caines, "Minimum Energy Control of Arbitrary Size Networks of Linear Systems via Graphon Limits", SIAM Workshop on Network Science, Pittsburgh, PA, USA, July 13-14, 2017
- [38] S. Gao* and P. E. Caines, "The Control of Arbitrary Size Networks of Linear Systems via Graphon Limits", Symposium of Controlling Complex Networks, Indianapolis, IN, USA, June 19-20, 2017

CHAMPAGNE, BENOIT:

- [39] K. Zhang (Visiting PhD), J. Wang, J. Yang, B. Champagne and J. Wei, "A weighted combining algorithm for spatial multiplexing MIMO DF relaying systems," *IEEE Trans. on Communications*, vol. 65, pp. 4751-4764, Nov. 2017.
- [40] S. Yousefi (PhD), X.-W. Chang, H. Wymeersch, B. Champagne and G. Toussaint, "A novel approach for ellipsoidal outer-approximation of the intersection region of ellipses in the plane," *Computational Optimization and Applications*, 2017 (DOI/10.1007/s10589-017-9952-3)
- [41] L. Zhang, Y. Cai, M. Jiao, B. Champagne and L. Hanzo, "Nonlinear MIMO transceivers improve wireless powered and self-interference-aided relaying," *IEEE Trans on Wireless Communications*, vol. 16, pp. 6953-6966, Oct. 2017.
- [42] A. Morsali (PhD), A. Haghighat and B. Champagne, "Realizing fully digital precoders in hybrid A/D architecture with minimum number of RF chains," *IEEE Communications Letters*, vol. 21, pp. 2310-2313, Oct. 2017.
- [43] X. Zhai, Y. Cai, Q. Shi, M. Jiao, G. Y. Li and B. Champagne, "Joint transceiver design with antenna selection for large-scale MU-MIMO mmWave systems," *IEEE J. on Selected Areas in Communications*, vol. 35, pp. 2085-2096, Sept. 2017.
- [44] Y. Cai, Q. Shi, B. Champagne and G. Y. Li, "Joint transceiver designs for secure downlink communications over an amplify-and-forward MIMO relay", *IEEE Trans. on Communica-tions*, vol. 65, pp. 3691-3704, Sept. 2017
- [45] M. Parchami, W.-P. Zhu and B. Champagne, "Model-based estimation of late reverberant spectral variance using modified weighted prediction error method," *Speech Communication*, vol. 92, pp. 100-113, Sept. 2017.
- [46] J. Yang (PhD), B. Champagne, Y. Zou and L. Hanzo, "Centralized energy-efficient multi-user multiantenna relaying in next-generation radio access networks," *IEEE Trans. on Vehicular Technology*, vol. 66, pp. 7913-7924, Sept. 2017.
- [47] L. Zhang, Y. Cai, B. Champagne and M. Zhao, "Nonlinear transceiver design for secure communications with artificial noise-assisted MIMO relay," *IET Communications*, vol. 11, pp. 930-935, May 2017.
- [48] H. Chung (PhD), E. Plourde and B. Champagne, "Regularized non-negative matrix factorization with Gaussian mixtures and masking model for speech enhancement," *Speech Communication*, vol. 87, pp. 18-30, March 2017.
- [49] M. Parchami, W.-P. Zhu and B. Champagne, "Speech dereverberation using weighted prediction error with correlated inter-frame speech components," *Speech Communication*, vol. 87, pp. 49-57, March 2017.
- [50] S. Hatamnia, S. Vahidian, S. Aissa, B. Champagne and M. Ahmadian-Attari, "Network-coded two-way relaying in spectrum sharing systems with quality-of-service requirements," *IEEE Trans. on Vehicular Technology*, vol. 66, pp. 1299-1312, Feb. 2017. (11 citations)
- [51] M.-M. Zhao, Y. Cai, Q. Shi, M. Hong, and B. Champagne, "Joint transceiver designs for full-duplex K-Pair MIMO interference channel with SWIPT," *IEEE Trans on Communications*, vol. 65, pp. 890-905, Feb. 2017. (11 citations)
- [52] X. Wu, Y. Cai, M. Zhao, R. C. de Lamare and B. Champagne, "Adaptive widely-linear constrained constant modulus reduced-rank beamforming," *IEEE Trans. on Aerospace and Electronic Systems*, vol. 53, pp. 477-492, Feb. 2017.
- [53] R. Razani (MEng), H. Chung (PhD), Y. Attabi (PDF) and B. Champagne, "A reduced complexity MFCC-based deep neural network approach for speech enhancement," in *Proc. IEEE Int. Symp on Signal Processing and Information Technology*, Bilbao, Spain, Dec. 2017, 6 pages.
- [54] R. Guo, Y. Cai, Q. Shi, M. Zhao and B. Champagne, "Joint design of beam selection and precoding for mmWave MU-MIMO systems with lens antenna array," *IEEE PIMRC*, Montreal, Canada, Sept. 2017, 7 pages.
- [55] D. Kebiche (MEng), A. Baghaki (PhD), X. Zou and B. Champagne, "UFMC-based wideband spectrum sensing for cognitive radio systems in non-Gaussian noise," *IEEE PIMRC*, Montreal, Canada, Sept. 2017, 7 pages.
- [56] A. Tahat, C. D'Amours and B. Champagne, "Subspace decomposition channel estimation for multiple virtual MIMO SC-FDMA systems," in *Proc. IEEE Int. Conf. on Computer and Information Technology*, Helsinki, Finland, Aug. 2017, pp. 81-86.
- [57] L. Lu (Visiting PhD), H. Zhao and B. Champagne, "Steady-state analysis of the maximum correntropy Voterra filter with application to nonlinear channel equalization," in *Proc. EUSIPCO*, Kos, Greece, Sept. 2017, pp. 2689-2693. (Invited Paper)
- [58] H. Li (PhD), Y. Cai and B. Champagne, "SIC aided physical-layer network coding for multi-way relay channels," in *Proc. Canadian Workshop on Information Theory*, Quebec City, Canada, June 2017, 5 pages.
- [59] D. Tetréault-La Roche (Meng), B. Champagne, I. Psaromiligkos and B. Pelletier, "On the Use of Distributed Synchronization in 5G Device-to-Device Networks," in *Proc. ICC*, Paris, France, May 2017, 7 pages.

- [60] X. Zhai, Y. Cai, Q. Shi, M. Zhao, G. Y. Li and B. Champagne, "Joint antenna selection and transceiver design for MU-MIMO mmwave systems," in Proc. ICC, Paris, France, May 2017, 6 pages.
- [61] H. Chung (PhD), E. Plourde and B. Champagne, "Single-channel enhancement of convolutive noisy speech based on a discriminative NMF algorithm," in Proc. ICASSP, New Orleans, USA, March 2017, pp. 2302-2306.

CHEN, LAWRENCE R.:

- [62] L. R. Chen, P. Moslemi*, M. Ma, and R. Adams, "Simultaneous multi-channel microwave photonic signal processing," MDPI Photonics, Special Issue on Microwave Photonics, vol. 4, no. 4, 44 (2017).
- [63] L. R. Chen, "Silicon photonics for microwave photonics applications," IEEE/OSA Journal of Lightwave Technology, Special Issue on Selected Papers from OFC (Invited and Top Scored), vol. 35, no. 4, pp. 824-835 (2017).
- [64] L. R. Chen, "Subwavelength grating waveguide devices in silicon-on-insulators for integrated microwave photonics," Chinese Optics Letters, Special Issue on Microwave Photonics, vol. 15, no. 1, 010004 (2017).
- [65] M.-I. Comanici*, L. R. Chen, and P. Kung, "Microwave photonic filter-based interrogation system for multiple fiber Bragg grating sensors," Applied Optics, vol. 56, no. 32, pp. 9074-9078 (2017).
- [66] P. Moslemi*, L. R. Chen, and M. Rochette, "Simultaneously generating multiple chirped microwave waveforms using an arrayed waveguide Sagnac interferometer," IET Electronics Letters, vol. 53, no. 23, pp. 1534-1535 (2017).
- [67] B. Naghdi* and L. R. Chen, "Spectral engineering of subwavelength-grating-based contradirectional couplers," Optics Express, vol. 25, no. 21, pp. 25310-25317 (2017).
- [68] P. Moslemi* and L. R. Chen, "Simultaneously generating multiple chirped microwave pulses with superimposed FBGs," IEEE Photonics Technology Letters, vol. 29, no. 16, pp. 1387-1390 (2017).
- [69] M. Rezagholipour Dizaji*, C. J. Krüchel, A. Fülöp, P. A. Andrekson, V. Torres-Company, and L. R. Chen, "Silicon-rich nitride waveguides for broadband nonlinear signal processing," Optics Express, vol. 25, no. 11, pp. 12100-12108 (2017).
- [70] M. Ma*, R. Adams, and L. R. Chen, "Integrated photonic chip enabled simultaneous multi-channel ultra-wideband radio frequency spectrum analyzer," IEEE/OSA Journal of Lightwave Technology, vol. 35, no. 13, pp. 2622-2628 (2017).
- [71] C. Jia*, B. Shastri, P. R. Prucnal, M. Saad, and L. R. Chen, "Simultaneous Q-switching of a Tm³⁺:ZBLAN fiber laser at 1.9 μ m and 2.3 μ m using graphene," IEEE Photonics Technology Letters, vol. 29, no. 4, pp. 405-408 (2017).
- [72] Z. Wang*, J. Wang, L. R. Chen, and I. Glesk, "Broadband wavelength conversion based on on-chip nonlinear optical loop mirror," IEEE Photonics Conference, 1-5 October 2017, Lake Buena Vista, FL.
- [73] M. Ma, R. Adams, and L. R. Chen, "On-chip simultaneous multi-channel ultra-wideband radio frequency spectrum analyzer," Conference on Optical Fiber Communications, 19-23 March 2017, Los Angeles, CA.

CLARK, JAMES J.:

- [74] Bouchard, J. and Clark, J.J., "Quality Control of Stereoscopic 3-D Compositing Using Half-Occlusion Geometry", SMPTE Motion Imaging Journal, No. 9, pp 48-58, 2017.
- [75] Bouchard, J. and Clark, J.J., "Half-Occluded Regions: The Key to Detecting a Diverse Array of Defects in S3D Imagery", IC3D 2017 (Stereopsia), Brussels, Belgium, December 2017.
- [76] Gorji, S. and Clark, J.J., "Attentional Push: A Deep Convolutional Network for Augmenting Image Saliency with Shared Attention Modeling in Social Scenes", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Hawaii, July 2017.

COATES, MARK J.:

- [77] S. Shaghaghian and M. Coates, "Online Bayesian inference of diffusion networks," IEEE Trans. Signal and Information Processing over Networks, vol. 3, no. 3, pp. 500-512, Sept. 2017.
- [78] A. Saucan, M.J. Coates, and M. Rabbat, "A multi-sensor multi-Bernoulli filter," IEEE Trans. Signal Processing, vol. 65, no. 20, pp. 5495-5509, Oct. 2017.
- [79] Y. Li and M.J. Coates, "Particle filtering with invertible particle flow," IEEE Trans. Signal Processing, vol. 65, no. 15, pp. 4102-4116, Aug. 2017.
- [80] M. Kharratzadeh and M.J. Coates, "Semi-parametric order-based generalized multivariate regression," J. Multivariate Analysis, vol. 156, pp. 89-102, Apr. 2017.

- [81] Y. Li, E. Porter, A. Santorelli, M. Coates, and M. Popovic, "Microwave breast cancer detection via cost-sensitive ensemble classifiers: phantom and patient investigation," *Biomedical Signal Processing and Control*, vol. 31, no. 1, pp. 366-376, Jan. 2017.
- [82] Y. Li and M.J. Coates, "Sequential MCMC with Invertible Particle Flow," in *Proc. IEEE Int. Conf. Acoustics, Speech and Signal Processing*, New Orleans, USA, Apr. 2017.
- [83] A. Saucan, Y. Li and M.J. Coates, "Particle flow delta-GLMB filter," in *Proc. IEEE Int. Conf. Acoustics, Speech and Signal Proc.*, New Orleans, USA, Apr. 2017.
- [84] J. Yu, A. Saucan, M.J. Coates and M. Rabbat, "Algorithms for the Multi-Sensor Assignment Problem in the Delta-Generalized Labeled multi-Bernoulli Filter," in *Proc. IEEE Int. Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, Curacao, Dec. 2017.
- [85] S. Pal and M.J. Coates, "Gaussian Sum Particle Flow Filter", in *Proc. IEEE Int. Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, Curacao, Dec. 2017.

COOPERSTOCK, JEREMY R.:

- [86] *G. Millet, *M. Otis, *D. Horidniczy, and J. R. Cooperstock. "Design of Variable-Friction Devices for Shoe-Floor Contact." In: *Mechatronics* 46 (2017), pp. 115-125. url: <http://srl.mcgill.ca/publications/2017-MECHATRONICS.pdf>.
- [87] *P. Fortin and J. R. Cooperstock. "Laughter and Tickles: Toward Novel Approaches for Emotion and Behavior Elicitation." In: *IEEE Transactions on Affective Computing* 8.4 (2017). TAFCSI-2016-07-0124.R1, pp. 508-521. url: <http://ieeexplore.ieee.org/document/8052511/>.
- [88] E. Cupellini, J. R. Cooperstock, and M. Olivetti. "The Sound Motion Controller: a distributed system for interactive music performance." In: *Conference of the European Society for the Cognitive Sciences of Music*. Ghent, Belgium, July 2017.
- [89] *D. Horodniczy and J. R. Cooperstock. "Free the Hands! Enhanced Target Selection via a Variable-Friction Shoe." In: *Human Factors in Computing Systems (CHI)*. Denver, CO: ACM Press/Addison-Wesley Publishing Co., May 2017. url: <https://dl.acm.org/citation.cfm?id=3025625>.
- [90] D. M. Gay-Betton, *P. Alirezaee, J. R. Cooperstock, and J. J. Schlesinger. "HAPTIC – Haptic Anatomical Positioning To Improve Clinical Monitoring." In: *Design & Semantics of Form & Movement (DeSForM)*. Delft-Eindhoven, Netherlands, Oct. 2017.
- [91] *J. Anlauff, J. Fung, and J. R. Cooperstock. "VibeWalk – Foot-Based Tactons During Walking and Quiet Stance." In: *World Haptics Conference*. Munich, Germany, June 2017. url: <http://srl.mcgill.ca/publications/2017-WHS.pdf>.
- [92] *M. Diaz, *R. Girgis, T. Fevans, and J. R. Cooperstock. "To Veer or Not to Veer: Learning How to Stay Within the Crosswalk from Experts." In: *International Workshop on Assistive Computer Vision and Robotics*. Venice, Italy: IEEE, Oct. 2017.
- [93] *P. Alirezaee, *R. Girgis, *T. Kim, J. Schlesinger, and J. R. Cooperstock. "Did you feel that? Developing Novel Multimodal Alarms for High Consequence Clinical Environments." In: *International Conference on Auditory Displays*. Happy Valley, PA, USA, June 2017. url: <https://smartech.gatech.edu/handle/1853/58377>.
- [94] *P. Fortin, *J. Blum, and J. R. Cooperstock. "Raising the Heat: Electrical Muscle Stimulation for Simulated Heat Withdrawal Response." In: *User Interface Software and Technology*. Quebec City, Canada: ACM, Oct. 2017.

EL-GAMAL, MOURAD N.:

- [95] P.-V. Cicek, M. Y. Elsayed, F. Nabki, and M. N. El-Gamal, "A novel multi-level IC-compatible surface microfabrication technology for MEMS with independently controlled lateral and vertical submicron transduction gaps," *Journal of Micromechanics and Microengineering*, vol.27, no. 11, pp. 115002-115016 (15 pages), September 2017.
- [96] R. Mekky and M. N. El-Gamal, "A 0.5-bit step multi-resolution adjustable-input Range reconfigurable noise-shaping TDC using multi-step quantizer gated-ring oscillators," *Journal of Analog Integrated Circuits and Signal Processing*, accepted, 15 pages, 2017.
- [97] M. Parvizi, K. Allidina, and M. N. El-Gamal, "Ultralow-Power RF Systems and Building Blocks," book chapter in "Wireless Transceiver Circuits: System Perspectives and Design Aspects", Woogeun Rhee Editor, the CRC Press, pp. 335 - 370 (36 pages), August 2017.

FERRIE, FRANK:

- [98] Abou Moustafa, K. and Ferrie, F.P., Local generalized quadratic distance metrics: application to the k-nearest neighbors classifier, *Advances in Data Analysis and Classification*, 2017, <https://doi.org/10.1007/s11634-017-0286-x>, pp. 1-21.
- [99] Haji Abolhassani, A.A., Dimitrakopoulos, D., and Ferrie, F.P., A New High-Order, Nonstationary, and Transformation Invariant Spatial Simulation Approach *Proc. Geostatistics Valencia 2016*, published 2017, pp. 93-106.

GIANNACOPOULOS, DENNIS:

- [100] Abraham* D S, Giannacopoulos D D. (2017). A Parallel Implementation of the Correction Function Method for Poisson's Equation with Immersed Surface Charges. *IEEE Transactions on Magnetics*, 53(6):1-4. DOI: 10.1109/TMAG.2017.2659702.
- [101] Fernández* D, Akbarzadeh-Sharbat* A, Giannacopoulos D. (2017). Solving Finite-Element Time-Domain Problems with GaBP. *IEEE Transactions on Magnetics*, 53(6):1-4. DOI: 10.1109/TMAG.2017.2657555.
- [102] Afshar* F, Akbarzadeh-Sharbat* A, Giannacopoulos D, McFee S. (2017). Wideband Finite-Difference Time-Domain Modeling of Graphene via Recursive Fast Fourier Transform. *Progress In Electromagnetics Research C*, 75: 139-145. DOI:10.2528/PIERC17012505.

GROSS, WARREN J.:

- [103] A. J. *Wong, S. Hemati, and W. J. Gross, "A Modular Architecture for Structured Long Block-Length LDPC Decoders," *Journal of Signal Processing Systems*, vol. 90, no. 1, pp. 29-38, 2017.
- [104] S. A. *Hashemi, C. *Condo, and W. J. Gross, "Fast and Flexible Successive-Cancellation List Decoders for Polar Codes," *IEEE Transactions on Signal Processing*, vol. 65, no. 21, pp. 5756-5769, November 1 2017.
- [105] S. A. *Hashemi, C. *Condo, F. *Ercan, and W. J. Gross, "Memory-Efficient Polar Decoders," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, vol. 7, no. 4, pp. 604-615, December 2017.
- [106] P. *Giard, A. Balatsoukas-Stimming, T. C. Muller, A. Bonetti, C. Thibeault, W. J. Gross, P. Flatresse, and A. Burg, "PolarBear: A 28 nm FD-SOI ASIC for Decoding of Polar Codes," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, vol. 7, no. 4, pp. 616-629, December 2017.
- [107] C. *Condo and W. J. Gross, "Implementation of Sparse Superposition Codes," *IEEE Transactions on Signal Processing*, vol. 65, no. 9, pp. 2421-2427, May 1 2017.
- [108] C. *Condo, S. A. *Hashemi, and W. J. Gross, "Blind Detection with Polar Codes," *IEEE Communications Letters*, vol. 21, no. 12, pp. 2550-2553, December 2017.
- [109] A. *Ardakani, F. *Leduc-Primeau, N. Onizawa, T. Hanyu, and W. J. Gross, "VLSI Implementation of Deep Neural Network Using Integral Stochastic Computing," *IEEE Transactions on Very Large Scale Integration Systems*, vol. 25, no. 10, pp. 2688-2699, October 2017.
- [110] P. *Giard, C. Thibeault, and W. J. Gross, "High-Speed Decoders for Polar Codes," Springer, 2017. (Book)
- [111] N. Onizawa, K. Matsumiya, W. J. Gross, and T. Hanyu, "Accuracy/Energy-Flexible Stochastic Configurable 2D Gabor Filter with Instant-On Capability," *Proceedings of the 43rd European Solid-State Circuits Conference (ESSCIRC 2017)*, Leuven, Belgium, September 11-14, 2017, pp. 43-46.
- [112] L. *Lugosch and W. J. Gross, "Neural Offset Min-Sum Decoding," *Proceedings of the IEEE International Symposium on Information Theory (ISIT 2017)*, Aachen, Germany, June 25-30, 2017, pp. 1361-1365.
- [113] S. A. *Hashemi, M. Mondelli, S. H. Hassani, R. Urbanke, and W. J. Gross, "Partitioned List Decoding of Polar Codes: Analysis and Improvement of Finite Length Performance," *Proceedings of the IEEE Global Communications Conference (GLOBECOM) 2017*, Singapore, December 4-8, 2017.
- [114] S. A. *Hashemi, C. *Condo, and W. J. Gross, "Fast Simplified Successive-Cancellation List Decoding of Polar Codes," *Proceedings of the 2017 IEEE WCNC Workshop on Polar Coding in Wireless Communications: Theory and Implementation*, San Francisco, CA, March 19-22, 2017, pp. 1-6.
- [115] S. A. *Hashemi, C. *Condo, F. *Ercan, and W. J. Gross, "On the Performance of Polar Codes for 5G eMBB Control Channel," *Proceedings of the Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, October 29 - November 1, 2017.
- [116] F. *Ercan, C. *Condo, and W. J. Gross, "Reduced-Memory High-Throughput Fast-SSC Polar Code Decoder Architecture," *Proceedings of the IEEE Workshop on Signal Processing Systems (SiPS 2017)*, Lorient, France, October 3-5, 2017, pp. 1-6.
- [117] F. *Ercan, C. *Condo, S. A. *Hashemi, and W. J. Gross, "On Error-Correction Performance and Implementation of Polar Code List Decoders for 5G," *Proceedings of the 55th Annual Allerton Conference on Communication, Control, and Computing Organizing*, Monticello, IL, October 4-6, 2017.

- [118] C. *Condo, S. A. *Hashemi, and W. J. Gross, "Efficient Bit-Channel Reliability Computation for Multi-Mode Polar Code Encoders and Decoders," Proceedings of the IEEE Workshop on Signal Processing Systems (SiPS 2017), Lorent, France, October 3-5, 2017, pp. 1-6.
- [119] A. *Ardakani, C. *Condo, and W. J. Gross, "Activation Pruning of Deep Convolutional Neural Networks," Proceedings of the 2017 5th IEEE Global Conference on Signal and Information Processing, Montreal, QC, Canada, November 14-16, 2017.
- [120] A. *Ardakani, C. *Condo, and W. J. Gross, "Sparsely-Connected Neural Networks: Towards Efficient VLSI Implementation of Deep Neural Networks," Proceedings of the 5th International Conference on Learning Representations (ICLR 2017), Toulon, France, April 24-26, 2017, pp. 1-14.

JOOS, GEZA:

- [121] Syed Qaseem Ali; Diego Mascarella; Geza Joos; Longcheng Tan, "Torque elimination for integrated battery charger based on two permanent magnet synchronous motor drives for electric vehicles", IET Electric Power Applications, 2017, Volume: 11, Issue: 9, Pages: 1627 – 1635.
- [122] Subhadeep Bhattacharya; Sourabh Kumar Sharma; Diego Mascarella; Geza Joos, "Subfundamental Cycle Switching Frequency Variation Based on Output Current Ripple Analysis of a Three-Level Inverter", IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, Volume: 5, Issue: 4, Pages: 1797 – 1806.
- [123] Qiushi Cui; Khalil El-Arroudi; Géza Joós, "Real-time hardware-in-the-loop simulation for islanding detection schemes in hybrid distributed generation systems", IET Generation, Transmission & Distribution, 2017, Volume: 11, Issue: 12, Pages: 3050 – 3056.
- [124] Subhadeep Bhattacharya; Sourabh Kumar Sharma; Diego Mascarella; Géza Joós, "Subfundamental Cycle Switching Frequency Variation for Switching Losses Reduction of a Two-Level Inverter Traction Drive", IEEE Transactions on Transportation Electrification, 2017, Volume: 3, Issue: 3, Pages: 646 – 655.
- [125] Geza Joos; Jim Reilly; Ward Bower; Russ Neal, "The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System", IEEE Power and Energy Magazine, 2017, Volume: 15, Issue: 4, Pages: 32 – 40.
- [126] Subhadeep Bhattacharya; Diego Mascarella; Geza Joos, "Space-Vector-Based Generalized Discontinuous Pulsewidth Modulation for Three-Level Inverters Operating at Lower Modulation Indices", IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, Volume: 5, Issue: 2, Pages: 912 – 924.
- [127] Subhransu R. Samantaray; Innocent Kamwa; Geza Joos, "Phasor measurement unit based wide-area monitoring and information sharing between micro-grids", IET Generation, Transmission & Distribution, 2017, Volume: 11, Issue: 5, Pages: 1293 – 1302.
- [128] Qiushi Cui; Khalil El-Arroudi; Geza Joos, "An effective feature extraction method in pattern recognition based high impedance fault detection", 2017 19th International Conference on Intelligent System Application to Power Systems (ISAP), 2017, Pages: 1 – 6.
- [129] Hui Pang; Fei Zhang; Hailong Bao; Géza Joós; Weihua Wang; Wei Li; Luc-Andre Gregoire; Xuebing Zhai, "Simulation of modular multilevel converter and DC grids on FPGA with sub-microsecond time-step", 2017 IEEE Energy Conversion Congress and Exposition (ECCE), 2017, Pages: 2673 – 2678.
- [130] Xuebing Zhai; Chang Lin; Luc-Andre Gregoire; Weihua Wang; Wei Li; Fei Zhang; Geza Joos, "Multi-rate real-time simulation of modular multilevel converter for HVDC grids application", IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society, 2017.
- [131] Theubou Tameghe; René Wamkeue; Innocent Kamwa; Géza Joos; M. Ouhrouche, "An enhanced current control scheme for microgrids supporting inverters applications", IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society, 2017.
- [132] G. Joos; J. Reilly, "Microgrid Deployment Enablers - Guidelines, Grid Codes and Standards", CIGRE Dublin Symposium, Dublin, 30 May-1 June 2017.

KHAZAKA, RONI:

- [133] M. Kassis, D. Tannir, R. Toukhtarian, and R. Khazaka, "Computation of the X-Parameters of Multi-Tone Circuits using Multipoint Moment Expansion" IEEE Conference on Electrical Performance of Electronic Packaging and Systems EPEPS, Oct 2017.
- [134] Y. Q. Xiao and R. Khazaka, "Passivity enforcement using half Hamiltonian matrix and frequency hopping," Proc 2017 International Conference on Electromagnetics in Advanced Applications, pp1575-1578, Sept. 2017.
- [135] M. Kanaan and R. Khazaka, "Nonlinear time-domain macromodeling using proper orthogonal decomposition and feedforward neural networks", 2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE), pp. 1-4, 2017.

KIRK, ANDREW:

- [136] A. Abumazwed*, W.Kubo, T.Tanaka, A.G.Kirk, 'Improved self-referenced biosensing with emphasis on multiple-resonance nanorod sensors', *OSA Optics Express*, 25 (20),pp 24803-24815, 2017
- [137] P.J.R. Roche, M. Najih*, S.S. Lee, L. K. Beitel, M. Carnevale, M. Paliouras, A. G. Kirk, M. A. Trifiro, 'Real Time Plasmonic qPCR: How fast is Ultra-fast? 30 cycles 1 in 54 seconds', *Analyst*, 142, pp 1746-1755, 2017
- [138] S. Fillion-Côté*, F.Melaine, A. G. Kirk, M. Tabrizian, 'Monitoring of bacterial film formation and its breakdown with an angular-based surface plasmon resonance biosensor', *Analyst*, 142 (13), pp 2386-2394, 2017
- [139] S. Fillion-Côté*, M. Tabrizian and A. G. Kirk, 'Real-Time Measurement of Complex Refractive Indices with Surface Plasmon Resonance', *Sensors and Actuators B*, 245, pp 747-752, June 2017
- [140] A. Abumazwed*, C. Shen*, W.Kubo, T.Tanaka, A.Kirk, 'Projection method for improving signal to noise ratio of localized surface plasmon resonance biosensors', *OSA Biomedical Optics Express*, 8 (1), pp. 446-459, 2017
- [141] A. Abumazwed*, W. Kubo, T. Tanaka, and A. G. Kirk, 'Towards accurate LSPR biosensors based on the projection method: a direct measurement for refractive index', *SPIE Photonics North*, Ottawa, June 2017
- [142] F. Soltani*, M. Menard, A.G.Kirk, 'Integrated silicon photonic reflective modulator for passive optical networks', *IEEE/OSA Conference on Lasers and Electro-optics (CLEO)*, JW2A.127, May 2017
- [143] M. T. Borojerdj*, M. Menard, A.G.Kirk, Bandwidth Tunable SOI Add-Drop Filter, *IEEE/OSA Conference on Lasers and Electro-optics (CLEO)*, JTh2A.111, May 2017

LABEAU, FABRICE:

- [144] X. Wang, L. Mei and F. Labeau, Closed-Form BER Expressions of QPSK constellation for Uplink Non-Orthogonal Multiple Access (NOMA), *IEEE Communication Letters*, Vol. 21, No. 10, October 2017, pp. 2242-2245.
- [145] D. Lin, Y. Tang, F. Labeau, Y. Yao and M. Imran, Internet of Vehicles for E-health Applications: A Potential Game for Optimal Network Capacity, *IEEE Systems Journal*, Vol. 11, No. 3, September 2017, pp. 1888-1896.
- [146] W. Taube, C. Garcia Nunez, D. Shakthivel, V. Vinciguerra, Fabrice Labeau, Duncan Gregory and Ravinder Dahiya, Nanowire FET Based Neural Element for Robotic Tactile Sensing Skin, *Frontiers in Neuroscience*, Vol. 11, No. 501, September 2017.
- [147] O. Delgado and F. Labeau, Delay aware load balancing over multipath wireless networks, *IEEE Transactions on Vehicular Technology*, Vol. 66, No. 8, August 2017, pp. 7485-7494.
- [148] L. Pishdad and F. Labeau, Approximate MMSE Estimator for Linear Dynamic Systems with Gaussian Mixture Noise, *IEEE Transactions on Automatic Control*, Vol. 62, No. 5, May 2017, pp. 2457-2463.
- [149] E. Xu, S. Shi, D. Li, X. Gu and F. Labeau, A Robust FLOM Based Spectrum Sensing Scheme under Middleton Class A Noise in IoT, *Mobile Information Systems*, No. 2017, April 2017, 9 pages.
- [150] H. Mahboubi, M. Vaezi and F. Labeau, Mobile Sensors Deployment Subject to Location Estimation Error, *IEEE Transactions on Vehicular Technology*, Vol. 66, No. 1, January 2017, pp. 668-678.
- [151] A. Hyadi, Z. Reski, F. Labeau and M. Alouini, Joint Secrecy for D2D Communications Underlying Cellular Networks, in *Proc. IEEE Global Communications Conference (Globecom)*, December 2017.
- [152] X. Wang, L. Mei and F. Labeau, Application of WFRFT in Impulsive Noise Channels of Substation Communications, in *Proc. IEEE Vehicular Technology Conference (VTC-Spring)*, June 2017, 5 pages.

LEIB, HARRY:

- [153] H. Leib, "Letter from the Editor-in-Chief of AIMS Electronics and Electrical Engineering journal", Editorial from the founding Editor-in-Chief of AIMS Electronics and Electrical Engineering Journal, (American Institute of Mathematical Sciences (AIMS) Press), pp. 1-3, Sept. 2017.
- [154] S. Monk, H. Leib, "A model for single neuron activity with refractory effects and spike rate estimation techniques", *IEEE Trans. on Neural Systems and Rehabilitation Eng.*, Vol. 25, No. 4, pp. 306-322, April 2017.
- [155] Y. Wang, H. Leib, "OFDM Symbol Detection Integrated with Channel Estimation for Doubly Selective Fading Channels", *Physical Communication*, (Elsevier), Vol. 22, pp. 19-31, March 2017.

LE-NGOC, THO:

- [156] Ahmed Masmoudi, Tho Le-Ngoc, "Channel Estimation and Self-Interference Cancellation in Full-Duplex Communication Systems", *IEEE Transactions on Vehicular Technology*, Vol. 66, No.1, January 2017, pp. 321-334

- [157] Duy H. N. Nguyen, Long B. Le, Tho Le-Ngoc, "Optimal Dynamic Point Selection for Power Minimization in Multiuser Downlink CaMP", *IEEE Transactions on Wireless Communications*, Vol. 16, No.1, January 2017, pp. 619-633.
- [158] Ahmed Masmoudi, Tho Le-Ngoc, "Subspace-Based Self-Interference Cancellation for Full-Duplex MIMO Transceivers", *EURASIP Journal on Wireless Communications and Networking* (2017), 2017:55. doi:10.1186/s13638-017-0839-x
- [159] Tuong Due Hoang, Long Bao Le, Tho Le-Ngoc, "Joint Mode Selection and Resource Allocation for Relay-based D2D Communications," *IEEE Communications Letters*, Vol. 21, No.2, February 2017, pp. 398-401
- [160] Tri Pham, Tho Le-Ngoc, Graeme K. Woodward, Philippa A. Martin, "Channel Estimation and Data Detection for Insufficient Cyclic Prefix MIMO-OFDM", *IEEE Transactions on Vehicular Technology*, Vol. 66, No.6, June 2017, pp.4756-4768, 10.1109/TVT.2016.2613894
- [161] Duy H. N. Nguyen, Long B. Le, Tho Le-Ngoc, Robert W. Heath, "Hybrid MMSE Preceding and Combining Designs for mmWave Multiuser Systems", *IEEE Access*, Vol. 5, No.1, pp.19167-19181, 10.1109/ACCESS.2017.2754979
- [162] Gowdemy Rajalingham, Quang-Dung Ho, Tho Le-Ngoc, "Quality-of-Service Differentiation for Smart Grid Neighbor Area Networks", *Journal Of Science And Technology: Issue On Information And Communications Technology*, Vol. 2, No. 1, Jan 2017' pp. 19-36
- [163] Ruikai Mai, Tho Le-Ngoc, Duy H. N. Nguyen, "Joint Hybrid Tx-Rx Design for Wireless Backhaul with Delay-Outage Constraint in Massive MIMO Systems", *IEEE Transactions on Wireless Communications*, Vol. 16, No. 10, October 2017, pp.6736-6750
- [164] Saeedeh Parsaeefard, Rajesh Dawadi, Mahsa Derakhshani, Tho Le-Ngoc, Mina Baghani, "Dynamic Resource Allocation for Virtualized Wireless Networks in Massive-MIMO-aided and Front-haul-Limited CRAN", *IEEE Transactions on Vehicular Technology*, Vol. 66, No.10, October 2017, pp. 9512-9520, 10.1109/TVT.2017.2712669
- [165] Sanjeeva P. Herath, Nandana Rajatheva, Tho Le-Ngoc, Chintha Tellambura, "Energy Detection with Diversity Reception", *Journal Of Science And Technology: Issue On Information And Communications Technology*, Vol. 3, No. 1, March 2017, pp. 20-28
- [166] Daniel Tweed, Mahsa Derakhshani, Saeedeh Parsaeefard, Tho Le-Ngoc, "Outage Constrained Resource Allocation in Uplink NOMA for Critical Applications", *IEEE Access*, Vol. 5, No. 1, December 2017, pp. 27636-27648, 10.1109/ACCESS.2017.2777601
- [167] Ruikai Mai, Tho Le-Ngoc, Duy H. N. Nguyen, "Hybrid MMSE-VP Preceding for Multi-User Massive MIMO Systems", *IEEE International Conference on Communications (ICC17)*, May 21-25, 2017, Paris
- [168] Fei Chen, Hak Hyun Lee, Robert Morawski, Tho Le-Ngoc, "RF/Analog Self-Interference Canceller for 2x2 MIMO Full-Duplex Transceiver", *IEEE International Conference on Communications (ICC17)*, May 21-25, 2017, Paris
- [169] Fei Chen, Robert Morawski, and Tho Le-Ngoc, "Self-Interference Channel Characteristics of a 2x2 MIMO Full-Duplex Transceiver", *IEEE 86th Vehicular Technology Conference (VTC) 2017 Fall*, September 24-27, 2017, Toronto
- [170] Ali A. Haghghi, Tho Le-Ngoc, "Uplink HARQ CaMP with ZF Receivers in Limited Backhaul", *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC17)*, October 08-13, 2017, Montreal.
- [171] Behnam Jamali, Atoosa Dalili Shoaie, Tho Le-Ngoc, "Dynamic User-AP Association for QoS-aware CSMA in Wireless Virtualized Networks", *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC17)*, October 08-13, 2017, Montreal.
- [172] Daniel Tweed, Saeedeh Parsaeefard, Mahsa Derakhshani, Tho Le-Ngoc, "Dynamic Resource Allocation for MC-NOMA Virtualized Wireless Networks with Imperfect SIC" *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC17)*, October 08-13, 2017, Montreal.
- [173] Atoosa Dalili Shoaie, Mahsa Derakhshani, Tho Le-Ngoc, Mohamed Salem, "Efficient LTE/WiFi Coexistence in Unlicensed Spectrum using Virtual Network Entity", *IEEE Globecom 2017*, December 4-8, 2017, Singapore
- [174] Tho Le-Ngoc, Rajesh Dawadi, Mahsa Derakhshani & Saeedeh Parsaeefard, *Virtualized Wireless Networks: User-Association and Resource-Allocation*, SpringerBriefs in Electrical and Computer Engineering, Springer, 2017 BOOKS/MONOGRAPHS:
- [175] Tho Le-Ngoc, Rajesh Dawadi, Mahsa Derakhshani & Saeedeh Parsaeefard, *Virtualized Wireless Networks: User-Association and Resource-Allocation*, SpringerBriefs in Electrical and Computer Engineering, Springer, 2017
- [176] Quang-Dung Ho, Daniel Tweed, Tho Le-Ngoc, *Long Term Evolution in Unlicensed Bands*, SpringerBriefs in Electrical and Computer Engineering, Springer, 2017

- [177] Tho Le-Ngoc, Ahmed Masmoudi, Full-Duplex Wireless Communications Systems: Self-Interference Cancellation, Wireless Networks, Springer, 2017
- [178] Tho Le-Ngoc, Khoa Tran Phan, Radio Resource Allocation over Fading Channels under Statistical Delay Constraints, SpringerBriefs in Electrical and Computer Engineering, Springer, 2017

LIBOIRON-LADOUCEUR, ODILE:

- [179] R. B. Priti*, H. Pishvai Bazargani*, Y. Xiong*, and O. Liboiron-Ladouceur, "Mode selecting switch using multimode interference for on-chip optical interconnects," OSA Optics Letters, 42(18), (2017)
- [180] Y. Xiong*, R. Priti*, O. Liboiron-Ladouceur, "High-speed two-mode switch for mode-division multiplexing optical networks," OSA Optica, 4(9), pp. 1178-1181 (2017)
- [181] B. Banan*, F. Shokraneh*, P. Berini, O. Liboiron-Ladouceur, "Electrical performance analysis of a CPW capable of transmitting microwave and optical signals," International Journal of Microwave and Wireless Technologies, 9(8), pp. 1679-1689 (2017)
- [182] M. Moayedi Pour Fard*, C. Williams*, G. Cowan, O. Liboiron-Ladouceur, "High-speed grating-assisted all-silicon photodetectors for 850 nm applications," OSA Optics Express, 25(5), pp. 5107-5118 (2017)
- [183] M.Y. Sowailam*, S. El-Fiky, M. Morsy-Osman, Qunbi Zhuge, M.T. Hoang, S. Paquet, C. Paquet, I. Woods, O. Liboiron-Ladouceur, D.V. Plant, "770 Gb/s PDM-32QAM Coherent Transmission Using InP Dual Polarization IQ Modulator," IEEE Photonics Technology Letters, 24(26), 442-445 (2017)
- [184] M.Y. Sowailam*, S. El-Fiky, M. Morsy-Osman, Qunbi Zhuge, T.M. Hoang, S. Paquet, C. Paquet, I. Woods, O. Liboiron-Ladouceur, D.V. Plant, "Self-homodyne system for next generation intra-datacenter optical interconnects, OSA Optics Express, 25(22), 27834-27844 (2017)
- [185] M.Y Sowailam*, M.T. Thang Hoang, M. Osman, M. Chagnon, Meng Qiu, S. Paquet, C. Paquet, I. Woods, Qunbi Zhuge, O. Liboiron-Ladouceur, D.V. Plant, "Impact of Chromatic Dispersion Compensation in Single Carrier Two-Dimensional Stokes Vector Direct Detection System", IEEE Photonics Journals, 9(4), 1-10 (2017)
- [186] Y. Xiong*, N. Andriolli, S. Faralli, F. Gambini, P. Pintus, M. Chiesa, R. Ortuno, and O. Liboiron-Ladouceur, "Demonstration of a Packaged Photonic Integrated Network on Chip controller by an FPGA-based scheduler," Optical Fiber Communication Conference and Exhibition (OFC), W1A.3, Los Angeles (USA), March 19–23, 2017
- [187] Y. Xiong*, F. G. de Magalhaes, G. Nicolescu, and O. Liboiron-Ladouceur, "Co-design of a Low-latency Centralized Controller for Silicon Photonic Multistage MZI-based Switches," Optical Fiber Communication Conference and Exhibition (OFC), Th2A.37, Los Angeles (USA), March 19–23, 2017
- [188] R. Priti, and O. Liboiron-Ladouceur, "A broadband rearrangeable non-blocking MZI-based thermos-optic O-band switch in Silicon-on-insulator," Advanced Photonics Congress, PM4D.2, July 2017.

LOWTHER, DAVID A.:

- [189] V. Ghorbanian, D. A. Lowther, "Magnetic and Electrical Design Challenges of Inverter-Fed Permanent Magnet Synchronous Motors", IEEE Transactions on Magnetics, Vol. 53, 6, 2017, Art. Seq. Num. 8103804
- [190] N. Alatawneh, T. Rahman, S. Hussain, D. A. Lowther, R. Chromik, "Accuracy of time domain extension formulae of core losses in non-oriented electrical steel laminations under non-sinusoidal excitation", IET Electric Power Applications, Vol. 11, 6, 2017, pp. 11341-1139.
- [191] P. Di Barba, M. E. Mognaschi, D. A. Lowther, J. K. Sykulski, "A Benchmark TEAM Problem for Multi-Objective Pareto Optimization of Electromagnetic Devices", IEEE Transactions on Magnetics, Volume: PrePrint (IEEE Explore), Issue: 99, 2017
- [192] M. H. Mohammad, R. C. P. Silva, D. A. Lowther. "Finding Optimal Performance Indices of Synchronous AC Motors", IEEE Transactions on Magnetics, Vol. 53, 6, 2017, Article Sequence Number: 8104004
- [193] M. H. Mohammadi, R. C. P. Silva, D. A. Lowther, "Incorporating Control Strategies into the Optimization of Synchronous AC Machines: A Comparison of Methodologies", IEEE Transactions on Magnetics, Volume: PrePrint (IEEE Explore), Issue: 99, 2017.
- [194] S. Hussain, D. A. Lowther, "The Modified Jiles–Atherton Model for the Accurate Prediction of Iron Losses", IEEE Transactions on Magnetics, Vol. 53, 6, 2017, Article Sequence Number: 7300504
- [195] V. Ghorbanian, S. Hussain, S. Hamidzadeh, R. Chromik, D. Lowther, "The Role of Temperature-Dependent Material Properties in Optimizing the Design of Permanent Magnet Motors", IEEE Transactions on Magnetics, Volume: PrePrint (IEEE Explore), Issue: 99, 2017.
- [196] V. Ghorbanian, D. A. Lowther, "A Statistical Solution to Efficiently Optimize the Design of an Inverter-Fed Permanent-Magnet Motor", IEEE Transactions on Industry Applications, Vol. 53, 6, 2017, pp 5315 - 5326

- [197] M. H. Mohammadi, D. A. Lowther, "A Computational Study of Efficiency Map Calculation for Synchronous AC Motor Drives Including Cross-Coupling and Saturation Effects", IEEE Transactions on Magnetics, Vol. 53, 6, 2017, Article Sequence Number: 8103704
- [198] M. H. Mohammadi, T. Rahman, R. C. P. Silva, B. Wang, K. Chang, D. A. Lowther, "Effect of Acoustic Noise on Optimal SynRM Design Regions", IEEE Transactions on Magnetics, Volume: PrePrint (IEEE Explore), Issue: 99, 2017.
- [199] S. Hussain; D. A. Lowther, "An Efficient Implementation of the Classical Preisach Model", IEEE Transactions on Magnetics, Volume: PrePrint (IEEE Explore), Issue: 99, 2017.
- [200] R. C. P. Silva, M. Li, T. Rahman, D. A. Lowther, "Surrogate-Based MOEA/D for Electric Motor Design With Scarce Function Evaluations", IEEE Transactions on Magnetics, Vol. 53, 6, 2017, Article Sequence Number: 7400704
- [201] M. Li, M. H. Mohammadi, T. Rahman, D. Lowther, "Analysis and design of electrical machines with material uncertainties in iron and permanent magnet", COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, Vol. 36, 5, 2017
- [202] V. Ghorbanian, S. Hussain, S. Hamidzadeh, R.Chromik, D. Lowther, "Demagnetization proximity considerations of inverter-fed permanent magnet motors", 2017 IEEE International Electric Machines and Drives Conference (IEMDC), 2017, Paper WP2105, Pages: 1 - 7
- [203] T. Rahman, M. H. Mohammadi, K. Humphries, D. A. Lowther, "Comparison of fractional-slot concentrated winding and PM-assisted synchronous reluctance motors for class IV electric vehicles", 2017 IEEE International Electric Machines and Drives Conference (IEMDC), 2017, Paper TO155, Pages: 1 - 7
- [204] P. Di Barba, M. E. Mognaschi, D. A. Lowther, S. Wiak, "A new sensitivity approach in multi-objective design: An application in electromechanics", 18th International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering (ISEF) Book of Abstracts, Lodz, Poland, Sept. 2017, Pages: 1 – 2
- [205] D. Lowther, "The Roles of Local Force and Loss Predictions in the Multi-Physics Analysis of Electromagnetic Devices", 18th International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering (ISEF) Book of Abstracts, 2017, Lodz, Poland, Sept. 2017, Pages: 1 – 2
- [206] D. Lowther (invited), "The Impact of Simulation Systems on Low Frequency Electromagnetic Device Design", 18th International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering (ISEF) Book of Abstracts, 2017, Lodz, Poland, Sept. 2017, Pages: 1 – 2
- [207] M. H. Mohammadi, M. Li, R. C. P. Silva, D. A. Lowther, "Automated Design of Rotor Topology for Synchronous Reluctance Machines considering Motor Control Strategies", COMPUMAG – International Conference on the Computation of Electromagnetic Fields, Daejon, Korea, June, 2017, pp. 1-2
- [208] S. Hussain; M. H. Mohammadi; Karanvir S. Sidhu; D. A. Lowther, "Effects of PWM excitations on iron loss in electrical steels and machines", 2017 IEEE Industry Applications Society Annual Meeting, Cincinnati, U.S.A., Oct. 2017, Pages: 1 - 8

MAHAJAN, ADITYA:

- [209] J. Chakravorty* and A. Mahajan, "Fundamental limits of remote estimation of autoregressive Markov processes under communication constraints," IEEE Transactions on Automatic Control, pp. 1109–1124, March 2017.
- [210] C. Ma*, A. Mahajan, and B. Meyer, "Multi-armed bandits for efficient lifetime estimation in MPSoC design," Design, Automation and Test in Europe (DATE), Laussane, Switzerland, Mar 23–27, 2017. (25% acceptance rate)
- [211] J. Chakravorty*, J. Subramanian*, and A. Mahajan, "Stochastic approximation based methods for computing the optimal thresholds in remote-state estimation with packet drops," American Control Conference, Seattle, WA, May 24–26, 2017.
- [212] J. Chakravorty* and A. Mahajan, "Structure of optimal strategies for remote estimation over Gilbert-Elliott channel with feedback," IEEE International Symposium of Information Theory (ISIT), Aachen, Germany, Jun 25–30, 2017. [4 citations]
- [213] M. Afshari* and A. Mahajan, "Static teams with common information," IFAC World Congress, Toulouse, France, Jul 9–14, 2017.
- [214] A. Mahajan, "Remote estimation over control area networks," IEEE Vehicular Technology Conference (VTC), Networked Vehicles for Intelligent Transportation and Smart Grids (NetV) Workshop, Toronto, Canada, Sep 24–27, 2017.

- [215] Y. Liu, A. Khisti, and A. Mahajan, "On Privacy in Smart Metering Systems with Periodically Time-Varying Input Distribution," *GlobalSIP Symposium on Control and Information Theoretic Approaches to Security and Privacy*, Montreal, Canada, Nov 14–16, 2017.

MAHESWARAN, MUTHUCUMARU:

- [216] A. Youssef, M. Maheswaran, and L. Youssef, "Wireless GINI: An Educational Platform for Hosting Virtual Wireless Networks," *Software Practice and Experience*, vol. 47, no. 1, January 2017, pp. 21-59 (published online Apr. 2016, DOI: 10.1002/spe.2399).
- [217] T-Y. Yu, X. Zhu, H. Chen, M. Maheswaran, "HetCast: Cooperative Data Delivery on Cellular and Road Side Network," *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Montreal, Canada, Oct. 2017.
- [218] R. Olaniyan and M. Maheswaran, "Resource Management and Scheduling in Cloud and Large Computing Clusters," in *Research Advances in Cloud Computing*, editors: S. Chaudhary, G. Somani, R. Buyya, Springer, 2017, pp. 237-262.

MCINTOSH, SHANE:

- [219] S. McIntosh, Y. Kamei. Are Fix-Inducing Changes a Moving Target? A Longitudinal Case Study of Just-In-Time Defect Prediction. *Transactions on Software Engineering (IEEE)*. DOI: 10.1109/TSE.2017.2693980
- [220] D. A. da Costa, S. McIntosh, C. Treude, U. Kulesza, A. E. Hassan. The Impact of Rapid Release Cycles on the Integration Delay of Fixed Issues. *Empirical Software Engineering (Springer)*. DOI: 10.1007/s10664-017-9548-7
- [221] D. A. da Costa, S. McIntosh, U. Kulesza, A. E. Hassan, S. L. Abebe. An Empirical Study of the Integration Time of Fixed Issues. *Empirical Software Engineering (Springer)*. DOI: 10.1007/s10664-017-9520-6
- [222] C. Bezemer, S. McIntosh, B. Adams, D. M. Germán, A. E. Hassan. An Empirical Study of Unspecified Dependencies in Make-Based Build Systems. *Empirical Software Engineering (Springer)*. DOI: 10.1007/s10664-017-9510-8
- [223] C. Macho, S. McIntosh, M. Pinzger. Extracting Build Changes with BuildDiff. In *proc. of the 14th Int'l Conf. on Mining Software Repositories (ACM/IEEE)*, pp. 368–378
- [224] B. Ghotra, S. McIntosh, A. E. Hassan. A Large-Scale Study of the Impact of Feature Selection Techniques on Defect Classification Models. In *proc. of the 14th Int'l Conf. on Mining Software Repositories (ACM/IEEE)*, pp. 146–157
- [225] Q. Cao, R. Wen, S. McIntosh. Forecasting the Duration of Incremental Build Jobs. In *proc. of the New Ideas and Emerging Results track of the 33rd Int'l Conf. on Software Maintenance and Evolution (IEEE)*, pp. 524–528.
- [226] M. Manglaviti, E. Coronado-Montoya, K. Gallaba, S. McIntosh. An Empirical Study of the Personnel Overhead of Continuous Integration. In *proc. of the Mining Challenge track of the 14th Int'l Conf. on Mining Software Repositories (ACM/IEEE)*, pp. 471–474
- [227] Y. Khan, Y. Gupta, K. Gallaba, S. McIntosh. The Impact of the Adoption of Continuous Integration on Developer Attraction and Retention. In *proc. of the Mining Challenge track of the 14th Int'l Conf. on Mining Software Repositories (ACM/IEEE)*, pp. 491–494

MEYER, BRETT:

- [228] *J. Caplan, *Z. Al-bayati, H. Zeng, and B. H. Meyer, "Mapping and scheduling mixed-criticality systems with on-demand redundancy," *IEEE Transactions on Computers*, pp. 1–8, October 2017. (Early access.)
- [229] M. I. Mera, *J. Caplan, *S. H. Mozafari, B. H. Meyer, and P. Milder, "Area, throughput, and power trade-offs for FPGA- and ASIC-based execution stream compression," *ACM Trans. Embed. Comput. Syst.*, vol. 16, pp. 96:1–96:20, May 2017.

MICHALSKA, HANNAH:

- [230] Ghoshal, D., Gopalakrishnan, K., Michalska, H., "Using invariance to extract signal from noise", *The 2017 American Control Conference Proceedings*, Seattle, WA, USA, 24-26 May, 2017, 6 pages.
- [231] Awan, F., Michalska, H., Joos, G., "Economic dispatch in microgrids using compromise solution in multi-objective optimization", *12th IEEE PES PowerTech Conference Proceedings: Towards and Beyond Sustainable Energy Systems*, Manchester, United Kingdom, 18-22 June, 2017, 6 pages.

- [232] Ghoshal, D., Gopalakrishnan, K., Michalska, H., "Algebraic parameter estimation using kernel representation of linear systems", The 20th IFAC World Congress Proceedings, Toulouse, France, 9-14 July, 2017, 6 pages.
- [233] Ghoshal, D., Gopalakrishnan, K., Michalska, H., "Kernel-based Adaptive Multiple Model Target tracking", IEEE Conference on Control Technology and Applications Proceedings, Kohala Coast, Hawaii, USA, August 27-30, 2017, 6 pages.
- [234] Ghoshal, D., Michalska, H., "Double-sided kernel observer for linear time-varying systems", IEEE Conference on Control Technology and Applications Proceedings, Kohala Coast, Hawaii, USA, August 27-30, 2017, 6 pages.
- [235] Fetallah, N, Saad, M., Michalska, H., Ghomam, J., "Robust tracking control for a quad-rotor UAV under perturbations"; IEEE Mediterranean Conference on Control and Automation, Proceedings, Valetta, Malta, 3-6 July 2017, 6 pages.
- [236] Fetallah, N, Saad, M., Michalska, H., Ghomam, J., "Robust observer-based backstepping controller for a quad-rotor UAV", IEEE Canadian Conference on Electrical and Computer Engineering, Proceedings, Windsor, Canada, April 30- May 3, 2017, 6 pages.
- [237] Roozegar, M., Angeles, J., Michalska, H., "Optimal Control Scheme with Terminal Control Constraints and Over-Actuation", accepted in International Journal of Control, Dec. 2017.
- [238] Pandey, A., Ghoshal, D., Michalska, H., "Variational Approach to Joint Linear Model and State Estimation", The 2018 American Control Conference, accepted Dec. 2017, Milwaukee, WI, USA, 27-29 June, 2018, 6 pages.
- [239] Sridhar, D., Ghoshal, D., Michalska, H., "B-Splines in Joint Parameter and State Estimation in Linear Time-Varying Systems", The 2018 American Control Conference, accepted Dec. 2017, Milwaukee, WI, USA, 27-29 June, 2018, 6 pages.
- [240] Roozegar, M., Angeles, J., Michalska, H., "Optimal Control Problems with Terminal Control Constraints and Over-actuation", The 2018 American Control Conference, accepted Dec. 2017, Milwaukee, WI, USA, 27-29 June, 2018, 6 pages.
- [241] Farkhatdinov, I., Michalska, H., Berthoz, H., Hayward, V., "Review of Anthropomorphic Head Stabilisation and Verticality Estimation in Robots", in Springer Tracts in Advanced Robotics, Ed. Jean-Paul Laumond, Springer Verlag, Nov. 2017, 28 pages. (Book Chapter)

MUSSBACHER, GUNTER:

- [242] Alam, O., Kienzle, J. and Mussbacher, G. (2017) Modelling a Family of Systems for Crisis Management with Concern-oriented Reuse. *Software: Practice and Experience (SPE)*, Wiley 47(7):985-999. DOI: 10.1002/spe.2463.
- [243] Duran, M.B. and Mussbacher, G. (2017) Evaluation of Goal Models in Reuse Hierarchies with Delayed Decisions. 7th International Model-Driven Requirements Engineering Workshop (MoDRE 2017), Lisbon, Portugal, September 2017. IEEE CS, 6-15. DOI: 10.1109/REW.2017.66.
- [244] Boucher, M. and Mussbacher, G. (2017) Transforming Workflow Models into Automated End-to-End Acceptance Test Cases. 9th Workshop on Modelling in Software Engineering (MiSE 2017), Buenos Aires, Argentina, May 2017. IEEE CS, 68-74. DOI: 10.1109/MiSE.2017.5.
- [245] Aprajita, *Luthra, S., and Mussbacher, G. (2017) Specifying Evolving Requirements Models with TimedURN. 9th Workshop on Modelling in Software Engineering (MiSE 2017), Buenos Aires, Argentina, May 2017. IEEE CS, 26-32. DOI: 10.1109/MiSE.2017.10.
- [246] Duran, M.B. (2017) Reusable Goal Models. Doctoral Symposium at 25th IEEE International Requirements Engineering Conference (RE 2017), Lisbon, Portugal, September, 2017. IEEE CS, 532-537. DOI: 10.1109/RE.2017.34.

NOWROUZSAHRAI, DEREK:

- [247] Chakravarty Reddy Alla Chaitanya, Anton Kaplanyan, Christoph Schied, Marco Salvi, Aaron Lefohn, Derek Nowrouzeshrai, Timo Aila. "Interactive Reconstruction of Monte Carlo Image Sequences using a Recurrent Denoising Autoencoder". *ACM Transactions on Graphics - SIGGRAPH* (Aug. 2017), 12 pages
- [248] Oliver Mercier, Yusufu Sulai, Kevin Mackenzie, Marina Zannoli, James Hillis, Derek Nowrouzeshrai, Douglas Lanman. "Fast Gaze-Contingent Optimal Decompositions for Multifocal Displays". *ACM Transactions on Graphics - SIGGRAPH Asia* (Nov. 2017), 12 pages
- [249] Laurent Belcour, Ling-Qi Yan, Ravi Ramamoorthi, Derek Nowrouzeshrai. "Antialiasing Complex Global Illumination Effects in Path-space". *ACM Transactions on Graphics* (Aug. 2017), 13 pages
- [250] Cyril Soler, Kartic Subr and Derek Nowrouzeshrai. "The BRDF Manifold". *Eurographics - Computer Graphics Journal* (Dec. 2017), 12 pages

- [251] Binh-Son Hua, Adrien Gruson, Derek Nowrouzezahrai and Toshiya Hachisuka. "Gradient-Domain Photon Density Estimation". Eurographics - Computer Graphics Journal (Sept. 2017), 12 pages
- [252] Toshiya Hachisuka, Iliyan Georgiev, Wojciech Jarosz, Jaroslav Krivanek, Derek Nowrouzezahrai. "Extended Path Integral Formulation for Volumetric Transport". ACM Eurographics Symposium on Rendering (June 2017), 12 pages
- [253] Renaud Adrien Dubouchet, Laurent Belcour and Derek Nowrouzezahrai. "Frequency Based Radiance Cache for Rendering Animations". Eurographics Symposium on Rendering (June 2017), 11 pages
- [254] Xiaozhong Chen, Sheldon Andrews, Paul Kry and Derek Nowrouzezahrai. "Ballistic Shadow Art". CHCSS Graphics Interface (Sept. 2017), 9 pages
- [255] Morgan McGuire, Michael Mara, Derek Nowrouzezahrai and David Luebke. "Real-Time Global Illumination using Precomputed Light Field Probes". ACM Interactive 3D Graphics & Games (I3D) (May. 2017), 12 pages
- [256] Weilun Sun, Xin Sun, Nathan Carr, Derek Nowrouzezahrai and Ravi Ramamoorthi. "Gradient-Domain Vertex Connection and Merging". ACM Eurographics Symposium on Rendering (June 2017), 12 pages

PLANT, DAVID V.:

- [257] T. Hoang, M. Sowailam, Q. Zhuge, M. Osman, A. Samni, C. Paquet, S. Paquet, I. Woods, and D. Plant, "Enabling high-capacity long reach direct detection transmission with QAM-PAM stokes vector modulation," J. Lightw. Technol., accepted, 2017.
- [258] M. Chagnon, M. Morsy-Osman, and D. V. Plant, "Half-terabit single carrier direct detect transceiver, formats and DSP: analysis and demonstration," J. Lightw. Technol., accepted, 2017.
- [259] M. Chagnon, M. Morsy-Osman, and D. V. Plant, "Multi-dimensional formats and transceiver architectures for direct setection with analysis on inter-polarization phase modulation," J. Lightw. Technol., vol. 35, pp. 885-892, 2017.
- [260] M. Xiang, Q. Zhuge, M. Qiu, F. Zhang, X. Zhou, M. Tang, S. Fu, and D. V. Plant, "Multi-subcarrier flexible bit-loading enabled capacity improvement in meshed optical networks with cascaded ROADMs," Opt. Exp., vol. 25, pp. 25046-25058, 2017.
- [261] K. Zhang, Q. Zhuge, H. Xin, H. He, W. Hu, and D. V. Plant, "Low-cost WDM fronthaul enabled by partitioned asymmetric AWGR with simultaneous flexible transceiver assignment and chirp management," J. Opt. Comm. & Netwks., vol. 9, 867-888, 2017.
- [262] K. Zhang, Q. Zhuge, H. Xin, M. Osman, E. El-Fiky, L. Yi, W. Hu, and D. V. Plant, "Intensity directed equalizer for the mitigation of DML chirp induced distortion in dispersion unmanaged C-band PAM transmission," Opt. Exp., vol. 25, pp. 28123-28135, 2017.
- [263] Z. Xiao, Q. Zhuge, S. Fu, F. Zhang, M. Qiu, M. Tang, D. Liu, and D. V. Plant, "Low complexity split digital backpropagation for digital subcarrier-multiplexing optical transmissions," Opt. Exp., vol. 25, pp. 27824-27833, 2017.
- [264] Y. Wang, L. Xu, A. Kumar, Y. D'Mello, D. Patel, Z. Xing, R. Li, M. G. Saber, E. El-Fiky, and D. V. Plant, "Compact single-etched sub-wavelength grating couplers for O-band application," Opt. Exp., vol. 25, pp. 30582-30590, 2017.
- [265] R. Li, D. Patel, A. Samani, E. El-Fiky, Y. Wang, Z. Xing, L. Xu, and D. V. Plant, "Analysis and experimental study of a silicon photonic single MRM-assisted MZI PAM-4 modulator," IEEE Photonics Journal, vol. 9, p. 4900607, 2017.
- [266] E. El-Fiky, M. Osman, M. Sowailam, A. Samani, D. Patel, R. Li, Md. G. Saber, Y. Wang, N. Abadia, Y. D'Mello, and D. V. Plant, "200 Gb/s transmission using a dual-polarization O-Band silicon photonic intensity modulator for Stokes vector direct detection applications," Opt. Exp., vol. 25, pp. 30336-30348, 2017.
- [267] X. Zhou, Q. Zhuge, M. Qiu, F. Zhang, M. Sowailam, T. M. Hoang, M. Xiang, B. Wu, K. Qiu, and D. V. Plant, "Low-complexity one-step digital back-propagation for single span high-capacity coherent transmissions," IEEE Photonics Journal, vol. 9, p. 7202511, 2017.
- [268] F. Zhang, Q. Zhuge, and D. V. Plant, "Fast analytical evaluation of fiber nonlinear noise variance in mesh optical networks," J. of Opt. Comm. Netwk., vol. 9, pp. C88-C97, 2017.
- [269] X. Zhou, Q. Zhuge, M. Qiu, M. Xiang, F. Zhang, B. Wu, K. Qiu, and D. V. Plant, "On the capacity improvement achieved by bandwidth-variable transceivers in meshed optical networks with cascaded ROADMs," OSA Opt. Exp., vol. 25, pp. 4773 - 4782, 2017.
- [270] M. Qiu, Q. Zhuge, M. Chagnon, F. Zhang and D. V. Plant, "Laser phase noise effects and joint carrier phase recovery in coherent optical transmissions with digital subcarrier multiplexing," IEEE Photonics Journal, vol. 9, p. 7901013, 2017.

- [271] E. El-Fiky, M. Chagnon, M. Sowailam, A. Samani, M. Morsy-Osman, and D. V. Plant, "168 Gb/s single carrier PAM4 transmission for intra data center optical interconnects," *IEEE Photon. Tech. Lett.*, vol. 29, pp. 314-317, 2017.
- [272] M. Xiang, Q. Zhuge, M. Qiu, X. Zhou, M. Tang, D. Liu, S. Fu, and D. V. Plant, "RF-pilot aided modulation format identification for hitless coherent transceiver," *OSA Opt. Exp.*, vol. 25, pp. 463 - 471, 2017.
- [273] A. Samani, D. Patel, M. Chagnon, E. El-Fiky, R. Li, M. Jacques, N. Abadía, V. Veerasubramanian, and D. V. Plant, "Experimental parametric study of 128 Gb/s PAM-4 transmission system using a multi-electrode silicon photonic Mach Zehnder modulator," *OSA Opt. Exp.*, vol. 25, pp. 13252 - 13262, 2017.
- [274] R. Li, D. Patel, E. El-Fiky, A. Samani, Z. Xing, M. Morsy-Osman, and D. V. Plant, "High-speed low-chirp PAM-4 transmission based on push-pull silicon photonic microring modulators," *OSA Opt. Exp.*, vol. 25, pp. 13222 - 13229, 2017.
- [275] R. Li, D. Patel, A. Samani, E. El-Fiky, Z. Xing, M. Morsy-Osman, and D. V. Plant, "Silicon photonic ring-assisted MZI for 50 Gb/s DAC-less and DSP-free PAM-4 transmission," *IEEE Photon. Tech. Lett.*, vol. 29, pp. 1046-1049, 2017.
- [276] Md. G. Saber, Z. Xing, D. Patel, E. El-Fiky, N. Abadia, Y. Wang, M. Jacques, M. Morsy-Osman, and D. V. Plant, "A CMOS compatible ultra-compact silicon photonic optical add-drop multiplexer with misaligned sidewall bragg gratings," *IEEE Photonics Journal*, vol. 9, p. 4900311, 2017.
- [277] R. Li, D. Patel, A. Samani, E. El-Fiky, Z. Xing, M. Sowailam, Q. Zhong, and D. V. Plant, "An 80 Gb/s silicon photonic modulator based on the principle of overlapped resonances," *IEEE Photonics Journal*, vol. 9, p. 6601010, 2017.
- [278] N. Abadía, X. Dai, Q. Lu, W.-H Guo, D. Patel, D. V. Plant, and J. F. Donegan, "Highly fabrication tolerant InP based polarization beam splitter based on p-i-n structure," *OSA Opt. Exp.*, vol. 25, pp. 10070-10077, 2017.
- [279] K. McGarvey-Lechable, T. Hamidfar, D. Patel, L. Xu, D. V. Plant, and P. Bianucci, "Slow light in mass-produced, dispersion-engineered photonic crystal ring resonators," *OSA Opt. Exp.*, vol. 25, pp. 3916-3926, 2017.
- [280] F. Zhang, Q. Zhuge, M. Qiu, and D. V. Plant, "Practical implementation for fiber nonlinear mitigation and compensation," *OSA SPPCom*, paper SpW2F.1, 2017.
- [281] D. V. Plant, "Optical communications systems for data center networking," *Optical Fiber Communications (OFC) Conference*, paper W3B.1, 2017.
- [282] M. Morsy-Osman and D. V. Plant, "Silicon-based solutions for fiber-optics communications systems," *Photonics North*, paper 255dpxU-55, 2017.
- [283] N. Abadia, X. Dai, Q. Lu, W. Guo, E. El-Fiky, D. V. Plant, and J.F. Donegan, "Novel polarization beam splitter based on p-i-n structure for an indium phosphide platform," *19th International Conference on Transparent Optical Networks (ICTON 2017)*, paper Tu.A5.1, 2017.
- [284] R. Li, D. Patel, E. El-Fiky, A. Samani, Z Xing, L. Xu, and D.V. Plant, "A C-band push-pull dual-ring silicon photonic modulator for 20km SSMF transmission without CD compensation," *Conference on Lasers and Electro-Optics (CLEO)*, paper SM2O.3, 2017.
- [285] Z. Xiao, Q. Zhuge, S. Fu, F. Zhang, M. Qiu, M. Tang, D. Liu, and D. V. Plant, "Low complexity single-step digital backpropagation for high-order QAM subcarrier-multiplexing transmission," *Asia Communications and Photonics Conference (ACP)*, paper SU4B.2, 2017.
- [286] S. Fan, Q. Zhuge, M. Sowailam, M. Osman, T. Hoang, F. Zhang, M. Qiu, Y. Li, J. Wu, and D. Plant, "Twin-SSB direct detection transmission over 80km SSMF using Kramers-Kronig receiver," *Proc. European Conference on Optical Communication (ECOC)*, paper W.2.D.5, 2017.
- [287] K. Zhang, Q. Zhuge, H. Xin, M. Morsy-Osman, E. El-Fiky, L. Yi, W. Hu, and D. V. Plant, "Intensity-directed equalizer for chirp compensation enabling DML-based 56Gb/s PAM4 C-band delivery over 35.9km SSMF," *Proc. European Conference on Optical Communication (ECOC)*, paper M.2.F.1, 2017.
- [288] Y. D'Mello, E. Elfiky, J. Skoric, D. Patel, and D. Plant, "Numerical analysis and optimization of a multi-mode interference based polarization beam splitter," *COMSOL*, 2017.
- [289] Y. D'Mello, M. Hui, J. Skoric, M. Haines, A. Kirk, M. Andrews, and D. Plant, "Silicon-organic-hybrid independent simultaneous dual-polarization modulator: device theory and design," *COMSOL*, 2017.
- [290] Y. Wang, L. Xu, A. Kumar, D. Patel, Z. Xing, R. Li, M. Ghulam Saber, Y. D'Mello, E. El-Fiky and D. V. Plant, "O-Band sub-wavelength grating coupler," *Group IV Photonics*, p429, 2017.
- [291] Y. Wang, L. Xu, A. Kumar, D. Patel, Z. Xing, R. Li, Md G. Saber, Y. D'Mello, E. El-Fiky and D. V. Plant, "Broadband sub-wavelength grating coupler for O-band application," *Group IV Photonics*, p129, 2017.
- [292] Md G. Saber, E. El-Fiky, D. Patel, M. Morsy-Osman, G. Vall-Ilosera, P. J. Urban, B. Dortschy, and D. V. Plant, "A silicon-on-insulator 120° optical hybrid based on 3x3 multimode interference coupler," *Photonics North*, paper 255-kn2b-93, 2017.

- [293] Md G. Saber, Z. Xing, E. El-Fiky, D. Patel, L. Xu, N. Abadía, and D. V. Plant, "Transversely coupled Fabry-Perot resonators in SOI," Conference on Lasers and Electro-Optics (CLEO), paper SM1N.4, 2017.
- [294] Md G. Saber, Z. Xing, D. Patel, E. El-Fiky, N. Abadía, Y. Wang and D. V. Plant, "A compact silicon photonic add-drop multiplexer with misaligned sidewall bragg gratings in a MZI," Conference on Lasers and Electro-Optics (CLEO), paper SF1H.2, 2017.
- [295] L. Xu, Y. Wang, D. Patel, E. El-Fiky, Z. Xing, R. Li, Md G. Saber, M. Jacques, and D. V. Plant, "Polarization independent adiabatic 3-dB coupler for silicon-on-insulator," Conference on Lasers and Electro-Optics (CLEO), paper SF1L.5, 2017.
- [296] M. Chagnon and D. V. Plant, "504 and 462 Gb/s direct detect transceiver for single carrier short-reach data center applications," Optical Fiber Communications (OFC) Conference, paper W3B.2, 2017.
- [297] M. Xiang, Q. Zhuge, X. Zhou, M. Qiu, F. Zhang, T. M. Hoang, M. Y. S. Sowailem, M. Tang, D. Liu, S. Fu, and D. V. Plant, "Filtering tolerant digital subcarrier multiplexing system with flexible bit and power loading," Optical Fiber Communications (OFC) Conference, paper W4A.7, 2017.
- [298] T. Hoang, M. Sowailem, M. Osman, C. Paquet, S. Paquet, I. Woods, Q. Zhuge, and D. V. Plant, "280-Gb/s 320-km transmission of polarization-division multiplexed QAM-PAM with Stokes vector receiver," Optical Fiber Communications (OFC) Conference, paper W3B.4, 2017.
- [299] A. Samani, M. Chagnon, E. El-Fiky, D. Patel, M. Jacques, V. Veerasubramanian, and D. V. Plant, "Silicon photonics modulator architectures for multi-level signal generation and transmission," Optical Fiber Communications (OFC) Conference, paper Tu2H.4, 2017.
- [300] E. El-Fiky, M. Sowailem, A. Samani, M. Osman, D. Patel, M. Chagnon, and D. V. Plant, "Dual polarization O-Band silicon photonic intensity modulator for stokes vector direct detection systems," Optical Fiber Communications (OFC) Conference, paper Tu2H.5, 2017. ro-Optics (CLEO), paper SM2O.3, 2017.

POPOVIC, MILICA:

- [301] L. Kranold, M. N. Kezzo and M. Popovic, "Observations on Phantom Stability and Antenna Arrangement for Microwave Tracking of Breast Tissue Changes", in Proc. 32nd URSI General Assembly, Montreal, 19-26 Aug., 2017.
- [302] L. Kranold, P. Hazarika and M. Popovic, "Investigation of Antenna Array Configurations for Dispersive Breast Models," in Proc. 11th European Conference on Antennas and Propagation (EUCAP 2017), pp. 2723-2727, Paris, France, Mar. 19-24, 2017.
- [303] K. El Hallaoui, A. Santorelli, M. Popovic and M. Coates, "Signal Analysis and Phantom Experiments for a Miniaturized Time-Domain Microwave Breast Health Monitoring Device," in Proc. 11th European Conference on Antennas and Propagation (EUCAP 2017), pp. 2723-2727, Paris, France, Mar. 19-24, 2017.
- [304] J. Moll, D. Wortge, V. Krozer, A. Santorelli, M. Popovic, B. Bazrafshan, F. Huebner, T. Vogl and N. Nikolova, "Quality Control of Carbon-Rubber Tissue Phantoms: Comparative MRI, CT, X-Ray and UWB Microwave Measurements," in Proc. 11th European Conference on Antennas and Propagation (EUCAP 2017), pp. 2723-2727, Paris, France, Mar. 19-24, 2017.

PSAROMILIGKOS, IOANNIS:

- [305] F. Cote, I. N. Psaromiligkos, and W. Gross, "A Theory of Generalized Proximity for ADMM," in Proceedings of 2017 IEEE GlobalSIP - Symposium on Distributed Optimization and Resource Management over Networks, Nov 2017.
- [306] A. S. Nobandegani, and I. N. Psaromiligkos, "The Causal Frame Problem: An Algorithmic Perspective," in Proceedings of 39th Annual Meeting of the Cognitive Science Society (CogSci17), Jul 2017.
- [307] A. Salehi Nobdandegani, J. Kabbara, and I. N. Psaromiligkos, "Relevance Effect: Exploiting Bayesian Networks to Improve Supervised Learning," in Proceedings of 2017 International Joint Conference on Neural Networks, May 2017.
- [308] F. Cote, I. N. Psaromiligkos, and W. Gross, "A distributed constrained-form support vector machine," in Proceedings of 2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Mar 2017.

RABBAT, MICHAEL:

- [309] N. Momeni and M. Rabbat, "Inferring structural characteristics of networks with strong and weak ties from fixed-choice surveys," IEEE Transactions on Signal and Information Processing Over Networks, special issue on "Graph Signal Processing", vol. 3, no. 3, pp. 513-525, September 2017.

- [310] S. Lawlor and M.G. Rabbat, "Time-varying mixtures of Markov chains: An application to traffic modeling," *IEEE Transactions on Signal Processing*, vol. 65, no. 12, pp. 3152–3167, June 2017.
- [311] M. Assran and M. Rabbat, "Empirical comparison of multi-agent optimization algorithms," *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, Montreal, Canada, November 2017.
- [312] M.G. Rabbat, "Inferring sparse graphs from smooth signals with theoretical guarantees," *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, New Orleans, USA, March 2017.

ROBERTS, GORDON:

- [313] Y. Li and G. W. Roberts, "Design of High-Order Delay-Locked Loops with a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities," *IEEE Transactions on Circuits and Systems I*, Oct. 2017.
- [314] M. Abdelfattah and G. W. Roberts, "All-Digital Time-Mode Direct-Form All-Pole Biquadratic Filter Realization," *IEEE Transactions on Circuits and Systems II: Express Briefs*, Vol. 64, Issue 11, pp. 1262-1266, Nov. 2017.
- [315] M. Mahani and G. W. Roberts, "A mmWave Folded Substrate Integrated Waveguide in a 130 nm CMOS Process," *IEEE Transactions on Microwave Theory and Techniques*, pp. 2775 – 2788, Feb. 2017.
- [316] C. Fayomi, H. A. Facpong, J. Mueller and G. W. Roberts, "Passive Sensors for Flexible Hybrid-Printed Electronics' Systems: an IC Designer View," *IEEE 60th Midwest Symposium on Circuits and Systems*, Boston, MA, USA, Aug., 2017.
- [317] S. Ziabakhsh, G. Gagnon and G. W. Roberts, "Time-Mode LDI-Based Resonator for a Band-Pass Delta-Sigma TDC," *IEEE 60th Midwest Symposium on Circuits and Systems*, Boston, MA, USA, Aug., 2017.
- [318] G. Gagnon, F. Gagnon and G. W. Roberts, "The Analytic Expression of the Output Spectrum of ADCs with Nonlinear Binary-Weighted DACs and Gaussian Input Signals," *IEEE International Circuits and Systems Conference*, Baltimore, US, May. 2017.

ROCHETTE, MARTIN:

- [319] D. D. Hudson, S. Antipov, L. Li, I. Alamgir, T. Hu, M. El Amraoui, Y. Messaddeq, M. Rochette, S. D. Jackson, and A. Fuerbach, "Toward all-fiber supercontinuum spanning the mid-infrared," *Optica* 4(10), 1163-1166 (2017).
- [320] M. Imrul Kayes and M. Rochette, "Optical frequency comb generation with ultra-narrow spectral lines," *Optics Letters* 42(14), 2718-2721 (2017).
- [321] N. Abdukerim, L. Li, M. El Amraoui, Y. Messaddeq and M. Rochette, "2 μm Raman Fiber Laser Based on a Multimaterial Chalcogenide Microwire," *Applied Physics Letters* 110, 161103 (2017).
- [322] F. Tavakoli, A. Rekik and M. Rochette, "Broadband and Wavelength-Dependent Chalcogenide Optical Fiber Couplers," *IEEE Photonics Technology Letters* 29(9), 735-738 (2017).
- [323] L. Li, N. Abdukerim and M. Rochette, "Mid-infrared wavelength conversion from AsSe microwires," *Optics Letters* 42(3), 639-642 (2017).
- [324] J. C. Beugnot, T. Sylvestre, J. C. Tchahame, M. Rochette, R. Ahmad, A. Godet, N. Abdoulaye, C. Jeanin, "Temperature and strain dependence of Brillouin scattering in chalcogenide optical microwires," at the 5th Workshop on Specialty Optical Fibers and their Applications, Limassol, Cyprus, October 2017.
- [325] M. I. Kayes and M. Rochette, "Fourier Transform Spectroscopy via a Single Electro-Optic Frequency Comb," at the IEEE Photonics Conference, WH3.5, Orlando, Florida, October 2017.
- [326] C. Jia, J. Qiao, N. Abdukerim, M. Rochette, and L. R. Chen, "Multi-wavelength Brillouin Tm³⁺-doped fiber laser at 1873 nm using a linear cavity," at the IEEE Photonics Conference, TuD2.2, Orlando, Florida, October 2017.
- [327] L. Li, N. Abdukerim, and M. Rochette, "Widely tunable mid-infrared wavelength converters based on chalcogenide microwires," at the IEEE Photonics Conference, MH4.4, Orlando, Florida, October 2017.
- [328] N. Abdukerim, L. Li, M. El Amraoui, Y. Messaddeq, and M. Rochette, "All-fiber Chalcogenide Raman Laser at 2 μm ," at the IEEE Photonics Conference, MH3.6, Orlando, Florida, October 2017.
- [329] L. Li, N. Abdukerim, and M. Rochette, "Mid-infrared all-fiber widely tunable wavelength converters based on As₂Se₃-CYTOP microwires," at the Integrated photonics research, silicon, and nano-photonics, ITh1A.3, New Orleans, Louisiana, July 2017.
- [330] D. D. Hudson, S. Antipov, L. Li, I. Alamgir, M. El Amraoui, Y. Messaddeq, M. Rochette, S. D. Jackson, and A. Fuerbach, "Octave-spanning supercontinuum in the mid-IR with a 3 μm ultrafast fiber laser," at the Nonlinear Optics: Materials, Fundamentals and Applications, NTu3A.3, Waikoloa, Hawaii, July 2017.

SHIH, ISHIANG:

- [331] Churchill, Hugh O. H. (Department of Physics, University of Arkansas, Fayetteville; AR; 72701, United States); Salamo, Gregory J.; Yu, Shui-Qing; Hironaka, Takayuki; Hu, Xian; Stacy, Jeb; Shih, Ishiang Toward Single Atom Chains with Exfoliated Tellurium Source: *Nanoscale Research Letters*, v 12, 2017
- [332] Fan, Shizhao (Department of Electrical and Computer Engineering, McGill University, 3480 University Street, Montreal; QC; H3A 0E9, Canada); Shih, Ishiang; Mi, Zetian Source: *Advanced Energy Materials*, A Monolithically Integrated InGaN Nanowire/Si Tandem Photoanode Approaching the Ideal Bandgap Configuration of 1.75/1.13 eV, v 7, n 2, January 25, 2017
- [333] Mi, Zetian (Department of Electrical Engineering and Computer Science, University of Michigan, 1301 Beal Avenue, Ann Arbor; MI; 48109, United States); Ra, Yong-Ho; Rashid, Roksana; Wang, Renjie; Shih, Ishiang Source: *Summer Topicals Meeting Series, InGaN nanowire integrated nanophotonics SUM 2017*, p 137-138, August 17, 2017, *Summer Topicals Meeting Series, SUM 2017*

SZKOPEK, THOMAS:

- [334] K. Hu, T. Szkopek and M. Cerruti, "Tuning the aggregation of graphene oxide dispersions to synthesize elastic, low density graphene aerogels", *J. Mat. Chem. A* 5 23123 (2017).
- [335] I. Fakih, F. Mahvash, M. Siaj and T. Szkopek, "pH detection in graphene field effect transistors at the quantum capacitance limit", *Phys. Rev. Appl.* 8, 044022 (2017).
- [336] A. Vlasov, J. Guillemette, G. Gervais and T. Szkopek, "Magnetic refrigeration with paramagnetic semiconductors at cryogenic temperatures", *Appl. Phys. Lett.* 111, 142102 (2017).
- [337] G. Zeb, P. Gaskell, K. Hu, X. Xiao, M. Cerruti, and T. Szkopek, "Surface Treatments for Controlling SEI Formation on Sn/Graphene Composite Anodes for High Performance Li Ion Batteries", *J. Phys. Chem. C* 121, 16682 (2017).
- [338] D.A. Laleyan, S. Zhao, S. Y. Woo, H. N. Tran, H. B. Le, T. Szkopek, H. Guo, G.A. Botton and Z. Mi, "AlN/h-BN Nanowire Heterostructures for Mg Dopant-Free Deep Ultraviolet Photonics", *Nano Lett.* 17, 3738 (2017).
- [339] F. Mahvash, S. Eissa, T. Boudjerba, A. Tavares, T. Szkopek and M. Siaj, "Corrosion resistance of hexagonal boron nitride on copper", *Sci. Rep.* 7, 42139 (2017).
- [340] I. Fakih, F. Mahvash, M. Siaj, T. Szkopek, and S. Heun, Enhancing the Ion Detection of Graphene Field Effect Transistors at the Quantum Capacitance Limit " 231st Electrochemical Society Meeting, New Orleans, 28 May - 1 June, 2017.
- [341] F. Telesio, N. Hemsworth, V. Tayari, S. Xiang, S. Roddaro, M. Caporali, A. Ienco, M. Serrano-Ruiz, M. Peruzzini, G. Gervais, T. Szkopek, and S. Heun, "Dephasing in Strongly Anisotropic Black Phosphorus" 16th International Conference on the Formation of Semiconductor Interfaces, Hannover, Germany, 2-7 July, 2017.
- [342] F. Telesio, N. Hemsworth, V. Tayari, S. Xiang, S. Roddaro, M. Caporali, A. Ienco, M. Serrano-Ruiz, M. Peruzzini, G. Gervais, T. Szkopek, and S. Heun, "Dephasing in Strongly Anisotropic Black Phosphorus", *Materials.it*, Catania, Italy, 12-16 December, 2017.

VARRO, DANIEL:

- [343] Semeráth O*, Barta Á, Horváth Á, Szatmári Z, Varró D. (2017). Formal validation of domain-specific languages with derived features and well-formedness constraints. *Software and Systems Modeling*, 16(2), 357-392. doi:10.1007/s10270-015-0485-x
- [344] Semeráth O*, Varró D. (2017). Evaluating Well-Formedness Constraints on Incomplete Models. *Acta Cybernetica*, 23(2), 687-713. doi:10.14232/actacyb.23.2.2017.15
- [345] Marton J, Szárnyas G*, Varró D. (2017). Formalising openCypher Graph Queries in Relational Algebra. In *ADBIS 2017: Advances in Databases and Information Systems - 21st European Conference* (p. 182-196) Springer. doi:10.1007/978-3-319-66917-5_13
- [346] Debreceni C*, Bergmann G, Ráth I, Varró D. (2017). Property-Based Locking in Collaborative Modeling. In *MODELS 2017: IEEE/ACM Conference on Model Driven Engineering, Languages and Systems* (p. 199-209) IEEE Computer Society. doi:10.1109/MODELS.2017.33
- [347] Bergmann G, Debreceni C*, Ráth I, Varró D. (2017). Towards Efficient Evaluation of Rule-based Permissions for Fine-grained Access Control in Collaborative Modeling. In *CloudMDE Workshop (MODELS Satellite Events)* (p. 135-144). doi:http://ceur-ws.org/Vol-2019/commitmde_2.pdf
- [348] Semeráth O*, Varró D. (2017). Graph Constraint Evaluation over Partial Models by Constraint Rewriting. In *ICMT 2017: 10th Int. Conf. on Model Transformation* (p. 138-154) Springer. doi:10.1007/978-3-319-61473-1_10

- [349] Debreceni C*, Bergmann G, Búr M*, Ráth I, Varró D. (2017). The MONDO collaboration framework: secure collaborative modeling over existing version control systems. In ESEC/SIGSOFT FSE 2017: 11th Joint Meeting on Foundations of Software Engineering (p. 984-988) ACM. doi:10.1145/3106237.3122829

WANG, XIAOZHE:

- [350] Xiaozhe Wang, Tao Wang, Hsiao-Dong Chiang, Jianhui Wang, Hui Liu. A Framework for Dynamic Stability Analysis of Power Systems with Volatile Wind Power. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, vol. 7, no. 3, pp. 422-431, 2017.
- [351] Xiaozhe Wang, Hsiao-Dong Chiang. A Hybrid Quasi Steady-State Model for Long-Term Stability Analysis: Model Development and Theoretical Basis. IEEE Transactions on Control of Network Systems, vol. 4, no. 3, pp. 533-543, 2017.
- [352] Hao Sheng, Xiaozhe Wang. Probabilistic Available Delivery Capability of General Distribution Networks with Renewables. IEEE Canada Electrical Power and Energy Conference, October 2017, 6 pages
- [353] Xiaozhe Wang, Konstantin Turitsyn. PMU-Based Estimation of Dynamic State Jacobian Matrix. IEEE International Conference on Circuits and Systems (ISCAS), May 2017, 4 pages.
- [354] Xiaozhe Wang. Estimating Dynamic Load Parameters from Ambient PMU Measurements. IEEE Power and Energy Society General Meeting, July 2017, 5 pages.

ZILIC, ZELJKO:

- [355] M. Janidarmian, A. Roshan Fekr, Radecka, Katarzyna, Zilic, Zeljko. A Comprehensive Analysis on Wearable Acceleration Sensors in Human Activity Recognition. Sensors. 17(3, 529): 1-26, 2017.
- [356] M Janidarmian, AR Fekr, K Radecka, Z Zilic, Multi-Objective Hierarchical Classification Using Wearable Sensors in a Health Application, IEEE Sensors Journal vol. 17, no. 5, pp1421-1433, 2017.
- [357] M, Janidarmian, A. Roshan Fekr, K. Radecka and Z. Zilic, "A Novel Algorithm to Reduce Machine Learning Efforts in Real-Time Sensor Data Analysis", Proceedings of 7th EAI International Conference on Wireless Mobile Communications and Healthcare, MOBIHEALTH, 8 pages. 2017. The Opening Paper of the Conference - distinction.
- [358] M, Janidarmian, A. Roshan Fekr, K. Radecka and Z. Zilic, "Evaluating a Vibrotactile Language for Sensory Substitution Systems", Proceedings of 7th EAI International Conference on Wireless Mobile Communications and Healthcare, MOBIHEALTH, 9 pages. 2017. Best Paper Award.
- [359] A. Suyyagh and Z. Zilic, Real-time Benchmark Set Synthesis Based on pWCET Estimation and Bounded Hyper-periods, Proc. IEEE International Conference on Circuits, Systems and Simulation, 5 pages, 2017.
- [360] A. Shashahani, D.R. Nafchi and Z. Zilic. Ultrasound sensors and its application in human heart rate monitoring. Proceedings of IEEE International Symposium on Circuits and Systems (ISCAS), 4 pages, May 2017.
- [361] Junchao Wang, Zeljko Zilic and Yutian Shu, Evaluation of an RF wearable device for non-invasive real-time hydration monitoring, IEEE 14th International Conference on Wearable and Implantable Body Sensor Networks (BSN), Netherlands, Hague, Page Range: 91 - 94, May 2017.
- [362] A. Tolstikhin and Z. Zilic, "Concealed Regression for Secure Aggregation in Low Power Wireless Networks", Proceedings of 20th IEEE Conference on Innovations in Clouds, Internet and Networks, ICIN, Mar. 2017.
- [363] J. Bohbot and Z. Zilic, "Mood Detection and Memory Performance Evaluation with Body Sensors", Proceedings of 9th International Conference on eHealth, Telemedicine and Social Medicine, eTELEMED, 7 pages, Mar. 2017.
- [364] K. Radecka and Z. Zilic, "DiaBeat Move App for Guiding and Enhancing Diabetic Lifestyle", Proceedings of 2017 IEEE International Conference on Biomedical and Health Informatics, Feb. 2017.
- [365] M, Janidarmian, A. Roshan Fekr, K. Radecka and Z. Zilic, "Sensory Substitution with Personalized Tactile Patterns", Proceedings of 2017 IEEE International Conference on Biomedical and Health Informatics, Feb. 2017.

II-C.2 OTHER PUBLICATIONS

ARBEL, TAL:

- [1] Jesson* and T. Arbel, "Brain Tumour Segmentation Using a 3D FCN with Multi-Scale Loss", in Proceedings of the "BRaTS Multimodal Brain Tumour Segmentation Challenge", held in conjunction with the 20th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2017), Quebec City, Quebec, Canada, September 2017.
- [2] A. Doyle* Master's Thesis, "Probabilistic patient grouping and prediction of Multiple Sclerosis disease activity based on a Bag of Lesions brain image representation", Electrical and Computer Engineering, McGill University, April 2017 (final submission).
- [3] C. Donnelly*, Master's Thesis, "Learning Contextual Probabilistic Pixel Sampling Templates for Pixel Selection in Medical Image Registration", Electrical and Computer Engineering, McGill University, December 2017 (final submission).

BOUFFARD, FRANCOIS:

- [4] A. Abiri-Jahromi* and F. Bouffard, "On the Loadability Sets of Power Systems—Part I: Characterization," presented at 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, Jul. 2017.
- [5] A. Abiri-Jahromi* and F. Bouffard, "On the Loadability Sets of Power Systems—Part II: Minimal Representations," presented at 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, Jul. 2017.
- [6] H. Nosair* and F. Bouffard, "Energy-Centric Flexibility Management in Power Systems," presented at 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, Jul. 2017.
- [7] H. Nosair* and F. Bouffard, "Economic Dispatch Under Uncertainty: The Probabilistic Envelopes Approach," presented at 2017 IEEE Power & Energy Society General Meeting, Chicago, IL, Jul. 2017.
- [8] M. Quashie, Optimal planning of advanced microgrids with an energy management system, Ph.D. thesis, Montreal, QC: McGill University, 2017.
- [9] C. M. Rangel, Energy management for enhanced microgrid operation, M.Eng. thesis, Montreal, QC: McGill University, 2017.
- [10] M. Lei, Optimal policies for energy storage in microgrids, , M.Eng. thesis, Montreal, QC: McGill University, 2017.

BOULET, BENOIT:

- [11] Mousavi, S. R., "Seamless Dual-Brake Transmission for Electric Vehicles: Design, Modeling, Estimation, and Control" Ph.D. Thesis, Department of Electrical and Computer Engineering, McGill University, 2017, Montreal, Quebec, Canada.
- [12] Alizadeh, H. V., "Modelling and Control of an Electromechanically Actuated Lubricated Frictional System" Ph.D. Thesis, Department of Electrical and Computer Engineering, McGill University, 2017, Montreal, Quebec, Canada.
- [13] Lotfalian, R., "Reliability-Based Life-Cycle Cost Analysis of Engineering Elements and Systems" Ph.D. Thesis, Department of Mechanical Engineering, McGill University, 2017, Montreal, Quebec, Canada. (thesis co-supervised by P. Radziszewski)

CHAMPAGNE, BENOIT:

- [14] Y. Attabi, H. Chung, Y. Ji, M. Parchami, R. Razani, M. Zhao, W.-P. Zhu and B. Champagne, "Microphone Array Processing Techniques for the Enhancement of Speech Degraded by Reverberation and Acoustic Background Noise – Year 2," McGill and Concordia Universities, Technical Report, Oct. 2017, 54 pages (Industrial Sponsor: Microsemi).
- [15] D. Kebiche, "UFMC-Based Wideband Spectrum Sensing for Cognitive Radios in Non-Gaussian Noise," M. Eng. Thesis Option, McGill University, Aug. 2017.
- [16] R. Razani, "Speech Enhancement Using a Reduced Complexity MFCC-Based Deep Neural Network," M. Eng. Thesis Option, McGill University, Nov. 2017.

COATES, MARK:

- [17] Y. Li, Ph.D. Thesis, Microwave breast cancer detection and sequential inference with particle flow, Department of Electrical and Computer Engineering, McGill University, July 2017.

- [18] S. Shaghaghian, Ph.D. Thesis, Information propagation in networks, Department of Electrical and Computer Engineering, McGill University, Oct. 2017.

EL-GAMAL, MOURAD:

- [19] M. Parvizi, K. Allidina, and M. N. El-Gamal, "Ultralow-Power RF Systems and Building Blocks," book chapter in "Wireless Transceiver Circuits: System Perspectives and Design Aspects", Woogeun Rhee Editor, the CRC Press, pp. 335 - 370 (36 pages), August 2017.

GIANNACOPOULOS, DENNIS:

- [20] G. Ghazal, I. Rehan, S. Alhinnawi and S. Iyer. (2016), Undergraduate Project (ECSE 457) Report. Project title "Residential Optimization of Energy Usage".
- [21] M. Alburquenque and I. Arredondon (2017), Undergraduate Project (ECSE 456) Report. Project title "Crime Avoidance Navigation System".
- [22] A. Wu, N. Tang, I. Shah and T. Davis. (2017), Undergraduate Project (ECSE 456) Report. Project title "Portal".

GROSS, WARREN J.:

- [23] H. K.-H. So and W. J. Gross, "Introduction to the Special Issue on Application-Specific Systems, Architectures and Processors," Journal of Signal Processing Systems, May 4 2017.
- [24] W. J. Gross, "Neural Offset Min-Sum Decoding," Ad-hoc Meeting on Deep Learning & Coding, Tel Aviv University, Israel, June 19, 2017 (Invited Workshop).

JOOS, GEZA:

- [25] D. Rimorov, "Design of Wind Generation Auxiliary Controls for Stability Improvement of Bulk Transmission Systems", PhD thesis, June 2017.
- [26] M. Quashie, "Optimal Planning of Advanced Microgrids with an Energy Management System, PhD thesis, Dec 2017.
- [27] Q. Cui, "Interconnection Protection of Distributed Energy Resources Using Intelligent Schemes", PhD thesis, Dec 2017.
- [28] C. Rangel, "Energy & Load Management Systems Microgrid Controllers Design and Testing on a Modular Real-Time Platform", MEng thesis, Dec 2017.

LABEAU, FABRICE:

- [29] J. Liu and F. Labeau, False Data Injection Attacks in the Context of Wireless Sensor Networks Used in Smart Grid, Hydro-Quebec Symposium 3i (Montreal, QC), November 2017.
- [30] E. Youssef and F. Labeau, Detection of False Data Injection Attacks against Correlated Power Measurements in Smart Grids, Hydro-Quebec Symposium 3i (Montreal, QC), November 2017.
- [31] M. Hajikhani and F. Labeau, An Autonomous Wireless Sensor Network in a Substation Area using Wireless Transfer of Energy, Hydro-Quebec Symposium 3i (Montreal, QC), November 2017.
- [32] O. Delgado and F. Labeau, Implementation of Impulsive Noise model in the LTE module of the NS-3 Simulator, Hydro-Quebec Symposium 3i (Montreal, QC), November 2017.
- [33] X. Wang and F. Labeau, Uplink Non-orthogonal Multiple Access (NOMA) System For Next Generation Communication, Hydro-Quebec Symposium 3i (Montreal, QC), November 2017.

LEIB, HARRY:

- [34] Xiaoxian Hou, Harry Leib, Network coded multi-way relaying based on linear block code, poster presented at the STARaCom Centre Inauguration meeting, McGill University, Montreal, AQuebec, Canada, Dec. 14, 2017.
- [35] Junqian Zhang, "Selective Decode-and-Forward Bidirectional Multi-Relay Networks with Regularized Weighted Decision Feedback Differential Coherent Receivers", M. Eng. thesis, Dept. of Electrical and Computer Eng., McGill University, July 2017.

LE-NGOC, THO:

- [36] Ruozhu Li, "Self-Interference Cancellation in Full-Duplex Communication Systems", M.Eng, McGill, February 2017.
- [37] Fei Chen, "Self-Interference in Full-Duplex 2x2 MIMO Transceivers: Channel Characterization and RF/Analog Cancellation", M.Eng, McGill, February 2017, Current Position: Radio Hardware Developer, Ericsson Ottawa
- [38] Daniel Tweed, "Resource Allocation for Uplink Non-Orthogonal Multiple Access in Virtualized Wireless Networks", M.Eng., McGill, October 2017
- [39] Nhat-Quang Dao, "Video Surveillance Network Infrastructure in Smart Cities", M.Eng. PROJECT TECHNICAL REPORT, October 2017

LIBOIRON-LADOUCEUR, ODILE:

- [40] N. Andriolli, I. Cerutti, O. Liboiron-Ladouceur, "Integrated Photonic Interconnects for Computing Platforms," in High-Speed and Lower Power Technologies: Electronics and Photonics (Devices, Circuits, and Systems), 1st Ed.; CRC Press Taylor & Francis Group, Eds Jung Han Choi and Krzysztof Iniewski, September 2018.
- [41] M. Nikdast*, G. Nicolescu, G. Trajkovic, and O. Liboiron-Ladouceur, "Impact of Fabrication Non-Uniformity on Silicon Photonic Networks-on-Chip," Photonic Interconnects for Computing Systems, River Publishers, 2017.
- [42] F.G. de Gohring*, M. Nikdast*, F. Hessel, O. Liboiron-Ladouceur, and G. Nicolescu, "Optical Interconnection Networks: The Need for Low-Latency Controllers," Photonic Interconnects for Computing Systems, River Publishers, 2017.

LOWTHER, DAVID:

- [43] A. Salimi, "Multi-Objective Robust Optimization and Statistical Analysis Techniques in Electrical Machine Design", Ph.D. Thesis, McGill University, September 2017. (Theses Supervised)
- [44] B. Wang, "A Neural Network Based Analytical Model for Predicting Acoustic Noise in Synchronous Reluctance Motors", M.Eng. Thesis, McGill University, April 2017.
- [45] A. Saleem, "Effect of Manufacturing on Microstructure and Magnetic Properties of Non-Oriented Electrical Steel", Ph.D. Thesis, McGill University, September 2017. (Co Supervised)

MAHAJAN, ADITYA:

- [46] J.Subramanian*, J.Chakravorty*, and A.Mahajan, "Renewal theory based reinforcement learning for Markov processes," Optimization Days, Montreal, QC, May 10–11, 2017.
- [47] A. Mahajan, "When to observe a Markov process," INFORMS Applied Probability Society Conference, Evanston, IL, July 10–12, 2017. (invited talk)
- [48] M. Afshari* and A. Mahajan, "Decentralized Kalman Filtering," Fields Institute Workshop on Stochastic Processes and their Applications, Carleton University, Ottawa, ON, Aug 9–11, 2017. (invited talk)
- [49] J. Subramanian* and A. Mahajan, "A new policy based RL algorithm with reduced bias and variance," Montreal AI Symposium, Montreal, QC, Sep 26, 2017.
- [50] M. Afshari* and A. Mahajan, "Team optimal decentralized filtering with coupled cost," Ninth Workshop on Dynamic Games in Management Science, Montreal, QC, Oct 12–13, 2017.
- [51] M. Afshari* and A. Mahajan, "Static teams with common information," Les Cahiers du GERAD, no. G-2017-29, April 2017.
- [52] J. Chakravorty*, Fundamental limits of remote estimation. PhD Thesis, McGill University, June 2017.
- [53] M. Lei*, Optimal policies for energy storage in microgrids, MEng Thesis, McGill University, July 2017.
- [54] A. Zhou, Monte Carlo simulations for remote state estimation, MEng Project Report, McGill University, April 2017.

MCINTOSH, SHANE:

- [55] D. A. da Costa. Understanding the Delivery Delay of Addressed Issues in Large Software Projects. PhD thesis.
- [56] K. Yamashita, A Study on Sustainability of Open Source Software Projects. PhD thesis.

MEYER, BRETT:

- [57] Zaid Al-bayati, "Design and scheduling of efficient real-time embedded systems," Doctoral Thesis, Department of Electrical and Computer Engineering, McGill University, July 2017.
- [58] M. Shabbir Hussain, "Computer security for the era of connected vehicles," Masters Thesis, Department of Electrical and Computer Engineering, McGill University, October 2017.

MICHALSKA, HANNAH:

- [59] Ana Laura Navarro Heredia, "Spatial operator algebra in modeling and properties of 3D inverted pendulae", MEng Thesis, 2017.
- [60] Ayesha Iqbal, "Performance evaluation of an IMM tracker in application to estimation of hybrid systems", MEng Thesis, 2017.
- [61] Muhammad Danyal Aslam, "Energy management system model using robust optimization for price responsive demands", MEng Thesis, 2017.
- [62] Abhishek Pandey, "Deterministic variational approach to system modelling by data assimilation", MEng Thesis, 2017.
- [63] Deepak Sridhar, "B-splines in joint parameter, state, and input estimation in linear time-varying systems", MEng Thesis, 2017.

MUSSBACHER, GUNTER:

- [64] Maaref, A. and Mussbacher, G. (2017) Three-Dimensional Workflows: A Vision. Poster Paper, 8th Summer School on Domain Specific Modelling Theory and Practice (DSM-TP 2017), Montreal, Canada, July 2017.
- [65] Duran, M.B. and Mussbacher, G. (2017) Evaluation of Reusable Impact Models. Poster Paper, 8th Summer School on Domain Specific Modelling Theory and Practice (DSM-TP 2017), Montreal, Canada, July 2017.
- [66] Aprajita, Luthra, S., and Mussbacher, G. (2017) Evaluating Evolving Requirements Models with jUCMNav. Tool Demo, 9th Workshop on Modelling in Software Engineering (MiSE 2017), Buenos Aires, Argentina, May 2017. Tool Demo.
- [67] Duran, M.B. and Mussbacher, G. (2017) Evaluation of Reusable Impact Models. Poster, Montreal Symposium on Software Engineering Research (MOSSER 2017), Montreal, Canada, May 2017.
- [68] Boucher, M. and Mussbacher, G. (2017) Transforming Workflow Models into Automated End-to-End Acceptance Test Cases. Poster, Consortium for Software Engineering Research (CSER) 2017 Spring Meeting, Montreal, Canada, May 2017.
- [69] Aprajita and Mussbacher, G. (2017) TimedGRL: Analyzing Evolving Goal Models. Tool Demo, Consortium for Software Engineering Research (CSER) 2017 Spring Meeting, Montreal, Canada, May 2017.
- [70] Duran, M.B. and Mussbacher, G. (2017) Evaluation of Reusable Impact Models with TouchCORE. Tool Demo, Consortium for Software Engineering Research (CSER) 2017 Spring Meeting, Montreal, Canada, May 2017.
- [71] Aprajita (2017) TimedGRL: Specifying Goal Models Over Time. M.Eng. thesis, Department of Electrical and Computer Engineering, McGill University, Canada
- [72] Yang, J. (2017) Concern-Oriented User Requirements Notation. M.Eng. thesis, Department of Electrical and Computer Engineering, McGill University, Canada.

NOWROUZEZHAI, DEREK:

- [73] Joel Polard-Perron, Error-based Radiance Probe Placement , M.Sc. Thesis, Université de Montréal, June 2017.
- [74] Mustafa Cihan Ozer, Matrix-based Parameterizations of Skeletal Animated Appearance, M.Sc. thesis, Université de Montréal, July 2017.

PLANT, DAVID:

- [75] Meng Qiu: Advanced Digital Signal Processing for Next-Generation Coherent Optical Communication Systems, Feb. 1, 2017.
- [76] Mohammed Sowailam: High-Speed Optical Systems for Intra- and Inter-Datacenter Networking, May 4, 2017.

PSAROMILIGKOS, IOANNIS:

- [77] A. Salehi Nobandegani. The Minimalist Mind: On Minimality in Reasoning and Action. PhD Thesis, Dec. 2017.

- [78] H. Zhu. Statistical Modeling and Tracking of Artery Wall Motion in Ultrasound Images. MEng Thesis, Dec. 2017.

RABBAT, MICHAEL:

- [79] C.W. Chao, S. Blouin, and M. Rabbat, "Decentralized fusion of low-pass weighted particle clouds," Graph Signal Processing Workshop, Pittsburgh, USA, May 2017.
- [80] S. Lawlor, Traffic Estimation and Detection Methods Utilizing Automatic Vehicle Identification Systems, PhD Thesis.
- [81] N. Momeni, The Structure of Social Networks: Modeling, Sampling, and Inference, PhD Thesis.

ROBERTS, GORDON:

- [82] M. Abdelfattah and G. W. Roberts, "Cascade and LC Ladder Realizations using Synchronous Time-Mode Signal Processing Techniques," submitted to the IEEE Transactions on VLSI Systems, Dec. 2017.
- [83] S. Ziabakhsh, G. Gagnon and G. W. Roberts "A Comparison of Performance Bounds for Voltage-Mode and Time-Mode Circuits In CMOS Technology," submitted to the IEEE Transactions on Circuits and Systems I, Jun. 2017.
- [84] Y. G. Cho, G. W. Roberts, S. Aouini, M. Parvizi and N. Ben-Hamida, "A Coherent Subsampling Test System Arrangement Suitable for Phase Domain Measurements", IEEE VLSI Test Symposium, San Francisco, April, 2018 (accepted for lecture presentation).
- [85] S. Ziabakhsh, G. Gagnon and G. W. Roberts, "An All-Digital High-Resolution Programmable Time-Difference Amplifier Based on Time Latch," IEEE International Circuits and Systems Conference, Florence, Italy, May 2018.
- [86] Mohammad. Shahidzadeh Mahani, Ultra-High-Speed Bandpass Interconnects, Ph.D. Thesis, McGill University, June, 2017.
- [87] Moataz Abdelfattah, Analog Filter Design Using Synchronous Time-Mode Signal Processing, Ph.D. Thesis, McGill University, Dec 2017.
- [88] Young Gouk Cho, A Coherent Subsampling Test System Arrangement with Amplitude and Phase Noise Measuring Capabilities, M. Eng. Thesis, McGill University, May. 2017.
- [89] Yan Li , Design of High-Order Delay-Locked Loops for Frequency Selectivity, M. Eng. Thesis, McGill University, Jan. 2017.

SZKOPEK, THOMAS:

- [90] Farzaneh Mahvash, PhD Thesis, Chemical Vapour Deposition Growth of Graphene and Hexagonal Boron Nitride, and a Study of the Electronic and Corrosion Inhibiting Properties of Hexagonal Boron Nitride.
- [91] Kaiwen Hu, PhD Thesis, Hydrothermal Gelation of Graphene Oxide: Mechanism and Gel Structural Control.
- [92] Gul Zeb, PhD Thesis, Surface Functionalization for the Development of Nanocomposite Anodes for Lithium Ion Batteries.
- [93] William Dickerson, M. Eng Thesis, Electronic Transport Measurements in Passivated Ultrathin Black Phosphorus Field-Effect Devices.

VARRO, DANIEL:

- [94] Ujhelyi, Zoltán: Program Analysis Techniques for Model Queries and Transformations. PhD thesis defended in 2017/05.

ZILIC, ZELJKO:

- [95] Majid Janidarmian, "Wearable Sensing and Feedback with Applications in Health and Lifestyle". Ph. D. Thesis, McGill University, 2017.
- [96] Andrei Tolstikhin, "Secure data aggregation techniques for low power wireless networks", M. Eng. Thesis, McGill University, 2017.