

## List of Publications, September 2020 (Stefan Werner)

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A. PEER-  
REVIEWED  
SCIENTIFIC  
ARTICLES

### A1. Journal article (refereed), original research

#### Selected journal articles

- [65] P. Talebi, S. Werner, D. Mandic “Quarternion-valued distributed filtering and control,” *IEEE Transactions Automatic Control*, July 2020 (Published).
- [64] V. R. Elias, W. A. Martins, S. Werner, “Extended adjacency and scale-dependent graph Fourier transform via diffusion distances,” *IEEE Transactions on Signal and Information Processing over Networks*, vol. 6, pp. 592–604, 2020.
- [63] K. Chen, S. Werner, Y.-H. Huang, A. Kuh, “Nonlinear adaptive filtering with kernel set-membership approach,” *IEEE Transactions on Signal Processing* vol. 68, pp. 1515–1528, February 2020.
- [62] V. C. Gogineni, P. Talebi, S. Werner, D. Mandic, “Fractional-order correntropy filters for tracking dynamic systems in alpha-stable environments,” *IEEE Transactions on Circuits and Systems, II, Express Briefs*, May 2020 (Published).
- [61] J. Leithon, S. Werner, V. Koivunen, “Cost-aware renewable energy management: Centralized vs. distributed generation,” *Renewable Energy*, vol. 147, pp. 1164–1179, March 2020.
- [60] P. Talebi, S. Werner, D. Mandic, “Complex-valued nonlinear adaptive filters with applications in alpha-stable environments,” *IEEE Signal Processing Letters*, vol. 26, pp. 1315–1319, September 2019.
- [59] J. Leithon, S. Werner, V. Koivunen, “Storage management in a shared solar environment with time-varying electricity prices,” *IEEE Journal on IoT*, vol. 6, pp. 7240–7436, October 2019.
- [58] P. Talebi, S. Werner, “Distributed Kalman filtering and control through embedded average consensus information fusion,” *IEEE Transactions on Automatic Control*, vol. 64, pp. 4396–4403, October 2019.
- [57] E. Antonio-Rodríguez, S. Werner, R. López-Valcarce, R. Wichman, “MMSE filter design for full-duplex filter-and-forward MIMO relays under limited dynamic range,” *Signal Processing*, vol. 156, pp. 208–219, March 2019.
- [56] P. Talebi, S. Werner, “Distributed Kalman filtering in presence of unknown outer network actuations,” *IEEE Control Systems Letters*, vol. 3, pp. 186–191, January 2019.
- [55] P. Talebi, S. Werner, D. Mandic, “Distributed adaptive Filtering of  $\alpha$ -stable signals,” *IEEE Signal Processing Letters*, vol. 25, pp. 1450–1454, October 2018.
- [54] N. Kashyap, S. Werner, Y.-H. Huang, “Decentralized PMU-assisted power system state estimation with reduced interarea communication,” *IEEE Journal on Selected Topics in Signal Processing*, vol. 12, pp. 607–616, August 2018.
- [53] P. Mathecken, T. Riihonen, S. Werner, R. Wichman, “Constrained phase noise estimation in OFDM using scattered pilots without decision feedback,” *IEEE Transactions on Signal Processing*, vol. 65, pp. 2348–2362, May. 2017.
- [52] E. Antonio-Rodríguez, S. Werner, R. López-Valcarce, T. Riihonen, R. Wichman, “Wideband full-duplex MIMO relays with blind adaptive self-interference cancellation,” *Signal Processing*, vol. 130, pp. 74–85, January 2017.
- [51] R. Arablouei, K. Dogançay, S. Werner, Y.-F. Huang, “On the asymptotic bias of the diffusion-based distributed Pareto optimization,” *Signal Processing*, vol. 130, pp. 337–342, January 2017.

- [50] S. Werner, J. Lundén, “Smart load tracking and reporting for real-time metering in electric power grids,” *IEEE Transactions on Smart Grid*, vol. 7, pp. 1723–1731, May 2016.
- [49] P. Mathecken, T. Riihonen, S. Werner, R. Wichman, “Phase noise estimation in OFDM: Utilizing its associated spectral geometry,” *IEEE Transactions on Signal Processing*, vol. 64, pp. 1999–2012, April 2016.
- [48] F. Chierchie, J. Cousseau, E. Paolini, S. Werner, “Mitigation of pulse-width-modulation distortion using a digital predistorter based on memory polynomials,” *Signal Processing*, vol. 120, pp. 562–571, March 2016.
- [47] R. Arablouei, S. Werner, K. Dogançay, Y.-F. Huang, “Analysis of a reduced-communication diffusion LMS algorithm,” *Signal Processing*, vol. 117, pp. 355–361, December 2015.
- [46] R. Arablouei, K. Dogançay, S. Werner, “On the mean-square performance of the constrained LMS algorithm,” *Signal Processing*, vol. 117, pp. 192–197, December 2015.
- [45] R. Arablouei, K. Dogançay, S. Werner, “Recursive total least-squares algorithm based on the inverse power method and the dichotomous coordinate-descent iterations,” *IEEE Transactions on Signal Processing*, vol. 63, pp. 1941–1949, April 2015.
- [44] R. Arablouei, K. Dogançay, S. Werner, “Adaptive frequency estimation of three-phase power systems,” *Signal Processing*, vol. 109, pp. 290–300, April 2015.
- [43] N. Kashyap, S. Werner, Y.-H. Huang, T. Riihonen, “Power system state estimation under incomplete PMU observability – A reduced-order approach,” *IEEE Journal of Selected Topics in Signal Processing*, Special Issue on Signal Processing in Smart Electric Power Grid, vol. 8, pp. 1051–1062, December 2014.
- [42] R. Arablouei, K. Dogançay, S. Werner, Y.-F. Huang, “Adaptive distributed estimation based on recursive least-squares and partial diffusion,” *IEEE Transactions on Signal Processing*, vol. 62, pp. 3510–3522, July 2014.
- [41] R. Arablouei, S. Werner, K. Dogançay, “Analysis of the gradient-descent total least-squares adaptive filtering algorithm,” *IEEE Transactions on Signal Processing*, vol. 62, pp. 1256–1264, March 2014.
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- [39] G. González, F. Gregorio, J. Cousseau, R. Wichman, S. Werner, “Uplink CFO compensation for FBMC multiple access and OFDMA in a high mobility scenario,” *Physical Communications*, October 2013.
- [38] F. Gregorio, J. Cousseau, S. Werner, T. Riihonen, R. Wichman, “EVM analysis for broadband OFDM direct-conversion transmitters,” *IEEE Transactions on Vehicular Technology*, vol. 62, pp. 3443–3451, September 2013.
- [37] C. Schmidt, J. Figueroa, J. Cousseau, R. Wichman, S. Werner, “Post-compensation of a CT first-order sigma-delta ADC using PWL dynamic systems,” *Latin American Applied Research*, vol. 43, pp. 287–293, 2013.
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- [35] M. Y. Cheong, S. Werner, J. Figueroa, J. Cousseau, R. Wichman, “Adaptive piecewise linear predistorters for nonlinear power amplifiers with memory,” *IEEE Transactions on Circuits and Systems I*, vol. 59, pp. 1519–1532, July 2012.

- [34] P. Mathecken, T. Riihonen, N. N. Tchamov, S. Werner, M. Valkama, R. Wichman, "Characterization of OFDM radio link under PLL-based oscillator phase noise and multipath fading channel," *IEEE Transactions on Communications*, vol. 60, pp. 1479–1485, June 2012.
- [33] T. Riihonen, R. Wichman, S. Werner, "Comments on 'Simple formulas for SIMO and MISO ergodic capacities'," *Electronics Letters*, vol. 48, p. 127, January 2012.
- [32] T. Riihonen, R. Wichman, S. Werner, "Evaluation of OFDM(A) relaying protocols: capacity analysis in infrastructure framework," *IEEE Transactions on Vehicular Technology*, vol. 61, pp. 360–374, January 2012.
- [31] T. Riihonen, S. Werner, R. Wichman, "Mitigation of self-interference in full-duplex MIMO relays," *IEEE Transactions on Signal Processing*, vol. 59, pp. 5983–5993, December 2011.
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- [23] T. Riihonen, S. Werner, R. Wichman, "Hypoexponential power-delay profile and performance of multihop OFDM relay links," *IEEE Transactions on Wireless Communications*, vol. 9, pp. 3878–3888, December 2010.
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- [15] J. Cousseau, S. Werner, P. Doñate, “Factorized all-pass based IIR adaptive notch filters,” *IEEE Transactions on Signal Processing*, vol. 55, no. 11, pp. 5225–5236, November 2007.
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- [7] S. Werner, M. L. R. de Campos, J. A. Apolinário Jr., P. S. R. Diniz, “Low-complexity constrained affine-projection algorithms,” *IEEE Transactions on Signal Processing*, vol. 53, pp. 4545–4555, December 2005.
- [6] S. Werner, M. L. R. de Campos, P. S. R. Diniz, “Partial-update NLMS algorithms with data-selective updating,” *IEEE Transactions on Signal Processing*, vol. 52, pp. 938–949, April 2004.
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- [1] S. Werner, P. S. R. Diniz, “Set-membership affine projection algorithm,” *IEEE Signal Processing Letters*, vol. 8, pp. 231–235, August 2001.

#### **A2. Review article, Literature review, Systematic review**

- [1] Y.-H. Huang, S. Werner, J. Huang, N. Kashyap, V. Gupta, “State estimation in electric power grids – meeting new challenges presented by the requirements of the future grid,” *IEEE Signal Processing Magazine*, September 2012.

#### **A3. Book section, chapters in research books**

- [3] S. Werner, M. Mohammed, “Weight extraction of fast QRD-RLS algorithms,” In José A. Apolinário Jr. (Ed.), *QRD-RLS Adaptive Filtering*, Springer Verlag (2009).
- [2] A. L. L. Ramos, S. Werner, “Multichannel fast QRD-RLS algorithms,” In José A. Apolinário Jr. (Ed.), *QRD-RLS Adaptive Filtering*, Springer Verlag (2009).
- [1] M. L. R. de Campos, S. Werner, J. A. Apolinário Jr., “Constrained Adaptive Filtering Algorithms,” In Sathish Chandran (Ed.), *Adaptive Antenna Array Techniques*, Springer Verlag (2004).

#### **A4. Conference proceedings**

- [122] C. Gratton, N. K. D. Venkatesowda, R. Arablouei, and S. Werner, “Distributed learning with non-smooth objective functions,” *European Speech and Signal Processing Conference, EUSIPCO*, Amsterdam, Netherlands, January 2021.
- [121] F. Gauthier, C. Gratton, N. K. D. Venkatesowda, and S. Werner, “Privacy-preserving distributed learning with non-smooth objective functions,” *IEEE Asilomar Conference on Signals, Systems and Computers, ACSSC*, Pacific Grove, CA, USA, November 2020.
- [120] V. W. Håkansson, N. K. D. Venkatesowda, S. Werner, “Optimal scheduling of multiple spatio-temporally dependent observations using age-of-information,” *IEEE Asilomar Conference on Signals, Systems and Computers, ACSSC*, Pacific Grove, CA, USA, November 2020.
- [119] V. R. M. Elias, V. C. Gogineni, W. A. Martins, S. Werner, “Graph diffusion kernel LMS using random Fourier features,” *IEEE Asilomar Conference on Signals, Systems and Computers, ACSSC*, Pacific Grove, CA, USA, November 2020.
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- [117] A. Moradi, N. K. D. Venkatesowda, S. Werner, “Coordinated data-falsification attacks in consensus-based distributed Kalman filtering,” *The Eighth International Workshop on Computational Advances in Multi-Sensor Adaptive Processing, CAMSAP*, Guadeloupe, December 2019.
- [116] V. Wattin Håkansson, N. K. D. Venkatesowda, F. A. Kraemer, S. Werner, “Cost-aware dual prediction scheme for reducing transmissions at IoT sensor nodes,” *European Signal Processing Conference, EUSIPCO*, A Coruna, Spain, September 2018.
- [115] C. Gratton, N. K. D. Venkatesowda, R. Arablouei, S. Werner, “Consensus-based distributed total least-squares estimation using parametric semidefinite programming,” *IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP*, Brighton, UK, May 2019.

- [114] P. Talebi, S. Werner, “Tracking dynamic systems in alpha-stable environments,” IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP, Brighton, UK, May 2019.
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- [111] A. Singh, V. Jain, S. Chaudhari, F. Kraemer, S. Werner, V. Garg, “Machine learning-based occupancy estimation using multivariate sensor nodes,” IEEE Global Communications Conference, Globecom, Abu Dhabi, UAE, December 2018.
- [110] N. K. D. Venkatesowda, S. Werner, “Privacy-preserving distributed precoder design for decentralized estimation,” IEEE Global Conference on Signal and Information Processing, GlobalSIP, Anaheim, CA, USA, November 2018.
- [109] C. Gratton, N. K. D. Venkatesowda, R. Arablouei, S. Werner, “Distributed ridge regression with feature partitioning,” IEEE Asilomar Conference on Signals, Systems and Computers, ACSSC, Pacific Grove, CA, USA, October 2018.
- [108] J. Leithon, S. Werner, V. Koivunen., “Cooperative renewable energy management with distributed generation,” European Signal Processing Conference, EUSIPCO, Rome, Italy, September 2018.
- [107] J. Leithon, S. Werner, V. Koivunen, “Renewable energy optimization with centralized and distributed generation,” European Signal Processing Conference, EUSIPCO, Rome, Italy, September 2018.
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- [104] E. Antonio-Rodríguez, S. Werner, T. Riihonen, R. Wichman, “Robust filter design for full-duplex relay links under limited dynamic range,” IEEE Workshop on Signal Processing Advances in Wireless Communications, SPAWC, Sapporo, Japan, June 2017.
- [103] N. Kashyap, S. Werner, Y.-H. Huang, R. Arablouei “Privacy preserving decentralized power system state estimation with phasor measurement units,” IEEE Sensor Array and Multichannel Signal Processing Workshop, SAM, Rio de Janeiro, Brazil, July 2016.
- [102] N. Kashyap, S. Werner, J. Lundén, “Signal-dependent preprocessing of buffered PMU measurements for hybrid state estimation,” IEEE International Instrumentation and Measurement Technology Conference, I2MTC, Taipei, Taiwan, May 2016.
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- [92] R. Arablouei, K. Dogançay, S. Werner, “Partial-diffusion recursive least-squares estimation over adaptive networks,” *The Fifth International Workshop on Computational Advances in Multi-Sensor Adaptive Processing, CAMSAP*, Saint Martin, December 2013.
- [91] T. Rautiainen, J. Lundén, S. Werner, V. Koivunen, “Demand side management through electricity pricing in competitive environments,” *IEEE European Innovative Smart Grid Technologies, ISGT*, October 2013.
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- [83] N. Kashyap, S. Werner, Y.-H. Huang, T. Riihonen, “Reduced-order synchrophasor-assisted state estimation for smart grids,” IEEE International Conference on Smart Grid Communications, SmartGridComm, Tainan city, Taiwan, November 2012.
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- [80] F. C. Ribeiro Jr., M. L. R. de Campos, S. Werner, “Distributed cooperative spectrum sensing with selective updating,” European Signal Processing Conference, EUSIPCO, Bucharest, Romania, August 2012.
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- [78] N. Kashyap, S. Werner, Y.-H. Huang, “Event-triggered multi-area state estimation in power systems,” The Fourth International Workshop on Computational Advances in Multi-Sensor Adaptive Processing, CAMSAP, San Juan, Puerto Rico, December 2011.
- [77] P. Mathecken, T. Riihonen, S. Werner, R. Wichman, “Accurate characterization and compensation of phase noise in OFDM receiver,” 45th Annual Asilomar Conference on Signals, Systems, and Computers, ACSSC, Pacific Grove, California, November 2011.
- [76] T. Riihonen, S. Werner, R. Wichman, “Transmit power optimization for multi-antenna decode-and-forward relays with loopback self-interference from full-duplex operation,” 45th Annual Asilomar Conference on Signals, Systems, and Computers, ACSSC, Pacific Grove, California, November 2011.
- [75] G. González, F. Gregorio, J. Cousseau, S. Werner, R. Wichman, “Cyclostationary autocorrelation based CFO estimators,” European Signal Processing Conference, EUSIPCO, Barcelona, Spain, August 2011.
- [74] J. Huang, S. Werner, Y.F. Huang, “Optimum reduced-order DSE for power systems with PMU measurements,” presented at the 7th Annual Carnegie-Mellon Conference on the Electricity Industry, Pittsburgh, PA, March, 2011.
- [73] T. Riihonen, A. Balakrishnan, K. Haneda, S. Wyne, S. Werner, R. Wichman, “Optimal eigenbeamforming for suppressing self-interference in full-duplex MIMO relays,” Conference on Information Sciences and Systems, CISS, Baltimore, MD, USA, March 2011.
- [72] J. F. Schmidt, J. E. Cousseau, R. Wichman, S. Werner, “Prediction based resource allocation in OFDMA,” Conference on Information Sciences and Systems, CISS, Baltimore, MD, USA, March 2011.
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**B. NON-REFEREED SCIENTIFIC ARTICLES**

**B1. Non-refereed journal articles**

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**G. THESES**

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