

# Björn Ottersten – Publications

## Peer Reviewed Journal Articles

- [J1] Shicong Liu, Zhen Gao, Yongpeng Wu, Derrick Wing Kwan Ng, Xiqi Gao, Kai-Kit Wong, Symeon Chatzinotas, and Björn Ottersten. LEO satellite constellations for 5G and beyond: How will they reshape vertical domains? *IEEE Communications Magazine*, 59(7):30–36, 2021.
- [J2] Y. Yuan, L. Lei, T.X. Vu, S. Chatzinotas, S. Sun, and B. Ottersten. Actor-critic learning-based energy optimization for UAV access and backhaul networks. *EURASIP Journal on Wireless Communications and Networking*, 78:1–1, 2021.
- [J3] Ahmet M. Elbir, Kumar Vijay Mishra, M. R. Bhavani Shankar, and Björn Ottersten. A family of deep learning architectures for channel estimation and hybrid beamforming in multi-carrier mm-wave massive MIMO. *IEEE Transactions on Cognitive Communications and Networking*, pages 1–1, 2021.
- [J4] Long Kong, Yun Ai, Lei Lei, Georges Kaddoum, Symeon Chatzinotas, and Björn Ottersten. An overview of generic tools for information-theoretic secrecy performance analysis over wiretap fading channels. *J Wireless Com Network*, (194), 2021.
- [J5] Ke-Xin Li, Li You, Jiaheng Wang, Xiqi Gao, Christos G. Tsinos, Symeon Chatzinotas, and Björn Ottersten. Downlink transmit design for massive MIMO LEO satellite communications. *IEEE Transactions on Communications*, pages 1–1, 2021.
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- [J7] Steven Kisseleff, Symeon Chatzinotas, and Björn Ottersten. Reconfigurable intelligent surfaces in challenging environments: Underwater, underground, industrial and disaster. *IEEE Access*, 9:150214–150233, 2021.
- [J8] Saeid Sedighi, Bhavani Shankar Mysore R, Mojtaba Soltanalian, and Bjorn Ottersten. On the performance of one-bit DoA estimation via sparse linear arrays. *IEEE Transactions on Signal Processing*, 69:6165–6182, 2021.
- [J9] Tan N. Nguyen, Dinh-Hieu Tran, Van-Duc Phan, Miroslav Voznak, Symeon Chatzinotas, Björn Ottersten, and H. Vincent Poor. Throughput enhancement in FD-and SWIPT-enabled IoT networks over non-identical rayleigh fading channels. *IEEE Internet of Things Journal*, pages 1–1, 2021.
- [J10] Sumit Gautam, Sumit Kumar, Symeon Chatzinotas, and Björn Ottersten. Experimental evaluation of RF waveform designs for wireless power transfer using software defined radio. *IEEE Access*, 9:132609–132622, 2021.
- [J11] Alireza Haqiqatnejad, Farbod Kayhan, Shahram Shahbazpanahi, and Bjorn Ottersten. Finite-alphabet symbol-level multiuser precoding for massive MU-MIMO downlink. *IEEE Transactions on Signal Processing*, 69:5595–5610, 2021.
- [J12] Christos G. Tsinos, Aakash Arora, Symeon Chatzinotas, and Bjorn Ottersten. Joint transmit waveform and receive filter design for dual-function radar-communication systems. *IEEE Journal of Selected Topics in Signal Processing*, 15(6):1378–1392, 2021.
- [J13] Trinh Van Chien, Hien Quoc Ngo, Symeon Chatzinotas, Björn Ottersten, and Mérouane Debbah. Uplink power control in massive MIMO with double scattering channels. *IEEE Transactions on Wireless Communications*, pages 1–1, 2021.
- [J14] Sumit Gautam, Sourabh Solanki, Shree Krishna Sharma, Symeon Chatzinotas, and Björn Ottersten. Hybrid active-and-passive relaying model for 6G-IoT greencom networks with SWIPT. *Sensors*, 21(18), 2021.

- [J15] Thang X. Vu, Symeon Chatzinotas, and Björn Ottersten. Dynamic bandwidth allocation and precoding design for highly-loaded multiuser MISO in beyond 5G networks. *IEEE Transactions on Wireless Communications*, pages 1–1, 2021.
- [J16] Dinh-Hieu Tran, Van-Dinh Nguyen, Symeon Chatzinotas, Thang X. Vu, and Björn Ottersten. UAV relay-assisted emergency communications in IoT networks: Resource allocation and trajectory optimization. *IEEE Transactions on Wireless Communications*, pages 1–1, 2021.
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- [B26] M. Viberg and B. Ottersten. “Efficient Estimation of Multiple Parameters from Sensor Array Data”. In E. F. Deprettere and A.-J. van der Veen, editors, *Proceedings of the International Workshop on Algorithms and Parallel VLSI Architectures, 10-16 June 1990, Pont-à-Mousson, France*, pages 193–202. Elsevier Science Publishers B.V., 1991.

## Björn Ottersten – Invited Papers

- [I1] S. Andrenacci, D. Spano, D. Christopoulos, S. Chatzinotas, J. Krause, and B. Ottersten. Optimized link adaptation for DVB-S2X precoded waveforms based on SNIR estimation. In *2016 50th Asilomar Conference on Signals, Systems and Computers*, pages –, November 2016. Invited Paper.
- [I2] M. Soltanalian, R. B. S. Mysore, and B. Ottersten. Reliability problems and Pareto-optimality in cognitive radar. In *2016 24th European Signal Processing Conference (EUSIPCO)*, pages 2225–2229, Aug 2016. Invited Paper.
- [I3] A. Gharanjik, K. Liolis, M.R.B. Shankar, and B. Ottersten. Spatial multiplexing in optical feeder links for high throughput satellites. In *Signal and Information Processing (GlobalSIP), 2014 IEEE Global Conference on*, pages 1112–1116, Dec 2014. Invited Paper.
- [I4] A. Tsakmalis, S. Chatzinotas, and B. Ottersten. Modulation and coding classification for adaptive power control in 5G cognitive communications. In *Signal Processing Advances in Wireless Communications (SPAWC), 2014 IEEE 15th International Workshop on*, pages 234–238, June 2014. Invited Paper.
- [I5] M. Alodeh, S. Chatzinotas, and B. Ottersten. Joint channel estimation and pilot allocation in underlay cognitive MISO networks. In *IWCMC 2014 - 10th International Wireless Communications and Mobile Computing Conference*, pages 797–802, Aug 2014. Invited Paper.
- [I6] M. Alodeh, S. Chatzinotas, and B. Ottersten. Data aware user selection in cognitive downlink MISO precoding systems. In *Signal Processing and Information Technology (ISSPIT), 2013 IEEE International Symposium on*, pages 000356–000361, Dec 2013. Invited Paper.
- [I7] Dzevdan Kapetanovic, Gan Zheng, Kai-Kit Wong, and Bjorn Ottersten. Detection of pilot contamination attack using random training and massive MIMO. In *Personal Indoor and Mobile Radio Communications (PIMRC), 2013 IEEE 24th International Symposium on*, pages 13–18, 2013. Invited Paper.
- [I8] S.K. Sharma, S. Chatzinotas, and B. Ottersten. Cognitive radio techniques for satellite communication systems. In *Proceedings of IEEE 78th Vehicular Technology Conference: VTC2013-Fall*, 2013. Invited Paper.
- [I9] Symeon Chatzinotas, Shree Krishna Sharma, and Bjorn Ottersten. Multiantenna signal processing for cognitive communications. In *Signal and Information Processing (ChinaSIP), 2013 IEEE China Summit International Conference on*, pages 293–297, 2013. Invited Paper.
- [I10] D. Christopoulos, S. Chatzinotas, M. Matthaiou, and B. Ottersten. Capacity analysis of multi-beam joint decoding over composite satellite channels. In *Signals, Systems and Computers (ASILOMAR), 2011 Conference Record of the Forty Fifth Asilomar Conference on*, pages 1795–1799, 2011. Invited Paper.
- [I11] E. Bjornson, M. Bengtsson, G. Zheng, and B. Ottersten. Computational framework for optimal robust beamforming in coordinated multicell systems. In *Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP), 2011 4th IEEE International Workshop on*, pages 245–248, 2011. Invited Paper, **Best Student Paper Award**.
- [I12] Symeon Chatzinotas, Muhammad Ali Imran, Reza Hoshyar, and Bjorn Ottersten. Multicell LMMSE filtering capacity under correlated multiple BS antennas. In *Proceedings IEEE Vehicular Technology Conference, Fall*, September 2010. Invited Paper.
- [I13] Gan Zheng, Kai-Kit Wong, Arogyaswami Paulraj, and Björn Ottersten. Robust and distributed beamforming. In *International Conference on Wireless Communications and Signal Processing (WCSP)*, November 2009. Invited Paper.
- [I14] Emil Björnson and Björn Ottersten. On the principles of multicell precoding with centralized and distributed cooperation. In *International Conference on Wireless Communications and Signal Processing (WCSP)*, November 2009. Invited paper, **Best Paper Award**.



- [I15] Svante Bergman, Simon Järmyr, Björn Ottersten, and Eduard Jorswieck. Optimization with skewed majorization constraints: Application to MIMO systems. In *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, September 2008. Invited Paper.
- [I16] Svante Bergman, Daniel P. Palomar, and Björn Ottersten. Optimal bit loading for MIMO systems with decision feedback detection. In *Proceedings IEEE Vehicular Technology Conference*, April 2009. Invited paper.
- [I17] Magnus Jansson, Petter Wirfält, Karl Werner, and Björn Ottersten. ML estimation of covariance matrices with kronecker and persymmetric structure. In *13th IEEE Digital Signal Processing Workshop*, pages 298 – 301, Marco Island, FL, January 2009. Invited paper.
- [I18] Emil Björnson and Björn Ottersten. Post-user-selection quantization and estimation of correlated frobenius and spectral channel norms. In *Proceedings IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, September 2008. Invited Paper.
- [I19] Eduard Jorswieck, Mats Bengtsson, and Björn E. Ottersten. On the interplay between scheduling, user distribution, CSI, and performance measures in cellular downlink. In *Proceedings of EUSIPCO*, September 2006.
- [I20] Svante Bergman and Björn Ottersten. Design of robust linear dispersion codes based on imperfect. In *Proceedings European Signal Processing Conference*, September 2006.
- [I21] Patrick Svedman, David Hammarwall, and Björn Ottersten. Sub-carrier SNR estimation at the transmitter for reduced feedback OFDMA. In *Proceedings European Signal Processing Conference*, September 2006.
- [I22] Svante Bergman and Björn Ottersten. Adaptive spatial bit loading using imperfect channel state information. In *Proceedings of International Workshop on Optical and Electronic Device Technology for Access Networks, Aalborg, Denmark*, September 2005. Invited paper.
- [I23] Cristoff Martin, Svante Bergman, and Björn Ottersten. Spatial loading based on channel covariance feedback and channel estimates. In *Proceedings European Signal Processing Conference*, September 2004.
- [I24] Xi Zhang and Björn Ottersten. Joint space-frequency optimization in multi user MIMO system. In *IEEE International Symposium on Signal Processing and Information Technology*, December 2003. Invited paper.
- [I25] Göran Klang and Björn Ottersten. Interference rejection in systems employing transmit diversity. In *Proceedings European Signal Processing Conference*, September 2002. Invited paper.
- [I26] Kai Yu, Mats Bengtsson, Björn Ottersten, and Mark Beach. Narrowband MIMO channel modeling for LOS indoor scenarios. In *Proceedings XXVIIth Triennial General Assembly of the International Union of Radio Science (URSI)*, August 2002. Invited paper.
- [I27] Rickard Stridh, Peter Karlsson, and Björn Ottersten. MIMO channel capacity on a measured indoor radio channel at 5.8 GHz. In *Proceedings Asilomar Conference on Signals, Systems & Computers*, October 2000. Invited paper.
- [I28] Cristoff Martin and Björn Ottersten. On robustness against burst unsynchronized co-channel interference in semi-blind detection. In *Proceedings Asilomar Conference on Signals, Systems & Computers*, October 2000. Invited paper.
- [I29] Rickard Stridh and Björn Ottersten. Spatial characterization of indoor radio channel measurements at 5 GHz. In *Proceedings IEEE Sensor Array and Multichannel Signal Processing Workshop*, Boston, USA, June 2000. Invited paper.
- [I30] Mats Bengtsson and Björn Ottersten. Optimal downlink beamforming using semidefinite optimization. In *Proc. 37th Annual Allerton Conference on Communication, Control, and Computing*, pages 987–996, September 1999. Invited paper.

- [I31] George Jöngren and Björn Ottersten. Combining transmit antenna weights and orthogonal space-time block codes by utilizing side information. In *Proceedings Asilomar Conference on Signals, Systems and Computers*, October 1999. Invited paper.
- [I32] Björn Völcker and Björn Ottersten. Linear chirp parameter estimation from multi channel data. In *Proceedings of the 33rd Asilomar Conference on Signals, Systems and Computers*, pages 238–242, Pacific Grove, CA, October 1999. Invited paper.
- [I33] Björn Ottersten. Array processing for wireless communications. *Antenna Systems & Technology*, 1, November 1998.
- [I34] David Asztély and Björn Ottersten. On spatio-temporal interference rejection combining with antenna arrays. In *8th DSP Workshop*, Bryce Canyon, Utah, USA, August 1998.
- [I35] Martin Kristensson and Björn Ottersten. Further results on optimally weighted subspace based blind channel estimation. In *Proceedings of the 32th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 1998.
- [I36] Göran Klang and Björn Ottersten. Channel estimation and interference rejection for multichannel systems. In *Proceedings Asilomar Conference on Signals, Systems & Computers*, November 1998.
- [I37] David Asztély, Mats Bengtsson, Martin Kristensson, and Björn Ottersten. Spatio-temporal processing for wireless communications. In *First Annual UCSD Conference on Wireless Communications*, San Diego, March 1998.
- [I38] D. Asztély, Andrew Lee Swindlehurst, and Björn Ottersten. Auto calibration for signal separation with uniform linear arrays. In *International Conference on Digital Signal Processing*, pages 403–406, Santorini, Greece, July 1997.
- [I39] Mats Bengtsson and Björn Ottersten. Low complexity estimation of angular spread with an antenna array. In *Proceedings of SYSID'97*, pages 535–540, July 1997.
- [I40] Alexei Gorokhov, Martin Kristensson, Björn Ottersten, and Michael Youssefmir. Some results on blind deconvolution applied to digital communication signals. In *International Conference on Digital Signal Processing*, pages 107–110, Santorini, Greece, May 1997.
- [I41] Björn Ottersten, David Asztély, Martin Kristensson, and Stefan Parkvall. Application of subspace based estimation in telecommunications. In *2nd International Workshop on TLS and Errors-in-Variables Modeling*, Leuven, Belgium, August 1996.
- [I42] Björn Ottersten and Per Zetterberg. Base-station antenna arrays in mobile communications. In *Proc. 7th Tyrrhenian International Workshop on Digital Communications*, Viareggio, Italy, August 1995.
- [I43] Björn Ottersten and R. Roy. “subspace algorithms in systems identification and telecommunication applications”. In *3rd International Workshop on SVD and Signal Processing*, Leuven, Belgium, May 1994.
- [I44] B. Ottersten. “Asymptotic Analysis of SVD-Based Array Processing Algorithms”. In *SIAM Conference on Linear Algebra in Signals, Systems and Control*, San Francisco, CA, Nov. 1990.
- [I45] B. Ottersten and T. Kailath. “ESPRIT for Wideband Signals”. In *Proc. 21<sup>st</sup> Asilomar Conf. Sig., Syst., Comput.*, Monterey, CA, November 1987.

## Björn Ottersten – Plenary/Keynote Speaker

- [K1] Björn Ottersten. Multiantenna precoding in satellite communication networks. In *Signal Processing Advances in Wireless Communications (SPAWC), 2021 IEEE 22nd International Workshop on*, Lucca, Italy, September 2021. Keynote speaker.
- [K2] Björn Ottersten. Precoding in wireless communications and satellite systems. In *International Workshop on Mathematical Issues in Information Sciences, MIIS*, Shenzhen, China, December 2020. Plenary speaker.
- [K3] Björn Ottersten. Multiantenna precoding in wireless communication systems. In *IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, May 2020. Plenary speaker.
- [K4] Björn Ottersten. Signal processing challenges in satellite communication networks. In *Comin-Labs Days*, Rennes, France, November 2016. Plenary speaker.
- [K5] Björn Ottersten. Signal processing challenges in satellite communication networks. In *Tyrrhenian International Workshop on Digital Communications (TIW16)*, Livorno, Italy, September 2016. Keynote speaker.
- [K6] Björn Ottersten. Satellite communication networks - future challenges. In *Twelfth International Symposium on Wireless Communication Systems (ISWCS)*, Brussels, Belgium, August 2015. Keynote speaker.
- [K7] Björn Ottersten. Satellite communications - signal processing challenges. In *IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, St Martin, France, December 2013. Plenary speaker.
- [K8] Björn Ottersten. Satellite communications - signal processing challenges. In *BELgian network on STOchastic modelling, analysis, design and optimization of COMmunication systems (BESTCOM)*, Leuven, Belgium, October 2013. Plenary speaker.
- [K9] Björn Ottersten. Multi-antenna signal processing in satellite communications. In *Statistics, Optimization, and Signal Processing (STATOS)*, Darmstadt, Germany, June 2013. Plenary speaker.
- [K10] Björn Ottersten. Satellite communications - signal processing challenges. In *XXXIII Finnish URSI Convention on Radio Science*, Helsinki, Finland, April 2013. Plenary speaker.
- [K11] Björn Ottersten. Signal processing challenges in satellite networks. In *International Conference on Wireless Communications and Signal Processing (WCSP 2012)*, Helsinki, Finland, October 2012. Keynote speaker.
- [K12] Björn Ottersten. Signal processing challenges in satellite networks. In *17th IEEE International Conference on Digital Signal Processing (DSP 2011)*, Corfu, Greece, July 2011. Keynote speaker.
- [K13] Björn Ottersten. Secure, reliable and trustworthy ICT systems and services. In *National Symposium on Technology and Methodology for Security and Crisis Management (TAMSEC)*, Linköping, Sweden, October 2010. Plenary speaker.
- [K14] Björn Ottersten. Signal processing challenges in mobile communications. In *Wireless World Research Forum*, Stockholm, Sweden, October 2008. Plenary speaker.
- [K15] Björn Ottersten. The evolution of mobile communications - a signal processing perspective. In *Smart Radios and Wireless Research*, Helsinki, Finland, October 2008. Plenary speaker.
- [K16] Björn Ottersten. The evolution of mobile communications - a signal processing perspective. In *EUSIPCO'08, European Signal Processing Conference*, Aalborg, Denmark, August 2008. Plenary speaker.

- [K17] Björn Ottersten. Signal processing - the enabler for mobile communications. In *Signal Processing Advances in Wireless Communications (SPAWC), 2008 IEEE International Workshop on*, Recife, Brazil, July 2008. Plenary speaker.
- [K18] Björn Ottersten. Space-time processing and coding for wireless communications, December 2003. Plenary speaker at FTC 2003.
- [K19] Björn Ottersten. Spatio-temporal processing and modeling in wireless systems, October 2002. Plenary speaker at URSI National Convention on Radio Science, Espoo, Finland.
- [K20] Björn Ottersten. MIMO channel modeling and multi-user MIMO systems, October 2002. Panel Speaker at 5th International Symposium on Wireless Personal Multimedia Communications (WPMP '2002).
- [K21] Björn Ottersten. Adaptive antennas in wideband radio access networks, June 2002. Planery Speaker at RadioVetenskap och Kommunikation (RVK).
- [K22] Björn Ottersten. Spatial channel modeling for wireless systems, December 2001. Planaray Speaker at FTC 2001.
- [K23] Björn Ottersten. Affordable wireless infrastructures and services, December 2001. Keynote address, FTC 2001.
- [K24] Björn Ottersten. Antenna arrays for wireless communications – models and algorithms, December 1999. Plenary speaker at Identification and Control of Complex Systems (ICCoS).
- [K25] Björn Ottersten. Antenna arrays for wireless communications models and algorithms from a systems perspective. In *2nd COST 259/260 Workshop on Spatial Channel Models and Adaptive*, Vienna, Austria, April 1999. Plenary speaker.
- [K26] Björn Ottersten. Array processing for wireless communications. In *8th IEEE Signal Processing Workshop on Statistical Signal and Array Processing*, pages 466–473, Corfu, Greece, June 1996. Plenary speaker.
- [K27] Björn Ottersten. Spatial processing in wireless communication systems. In *Workshop on Advanced Signal Processing Applications in Wireless Communications*, Philadelphia, PA, November 1996. Plenary speaker.
- [K28] Björn Ottersten. Sensor array signal processing with application to wireless communications. In *RadioVetenskap och Kommunikation (RVK)*, June 1996. Plenary speaker.
- [K29] Björn Ottersten. Overview of smart antenna technology and its application to wireless communication systems. October 1996. Address to Bay Area Chapter of the IEEE Communications Society.
- [K30] Björn Ottersten. “antenna arrays in mobile communications”. In *Communications, Computing, Control, and Signal Processing: 2000*, Stanford, CA, April 1995.
- [K31] Björn Ottersten. Subspace algorithms in systems identification and telecommunication applications. In *14th Benelux Meeting on Systems and Control*, Houthalen, Belgium, May 1995. Keynote speaker.
- [K32] Björn Ottersten. A subspace based instrumental variable method for state-space system identification. In *Swedish-Italian Workshop*, Stockholm, Sweden, September 1993.

## Björn Ottersten – Peer Reviewed Conference Proceedings

- [C1] Oyebade K. Oyedotun, Djamila Aouada, and Björn Ottersten. Structured compression of deep neural networks with debiased elastic group LASSO. In *2020 IEEE Winter Conference on Applications of Computer Vision (WACV)*, pages 2266–2275, 2020.
- [C2] Sumit Gautam, Sumit Kumar, Symeon Chatzinotas, and Björn Ottersten. Experimental comparison of RF waveform designs for wireless power transmission. In *2021 IEEE 26th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD)*, pages 1–7, 2021.
- [C3] Ke-Xin Li, Li You, Jiaheng Wang, Xiqi Gao, Christos G. Tsinos, Symeon Chatzinotas, and Björn Ottersten. Massive MIMO downlink transmission for LEO satellite communications. In *2021 IEEE 94th Vehicular Technology Conference (VTC2021-Fall)*, pages 1–5, 2021.
- [C4] Tedros Salih Abdu, Lei Lei, Steven Kisseleff, Eva Lagunas, Symeon Chatzinotas, and Björn Ottersten. Precoding-aided bandwidth optimization for high throughput satellite systems. In *2021 IEEE 4th 5G World Forum (5GWF)*, pages 13–17, 2021.
- [C5] Linlong Wu, Kumar Vijay Mishra, Bhavani Shankar M. R., and Björn Ottersten. Heterogeneously-distributed joint radar communications: Bayesian resource allocation. In *2021 IEEE 22nd International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pages 506–510, 2021.
- [C6] Lin Chen, Eva Lagunas, Symeon Chatzinotas, and Björn Ottersten. Satellite broadband capacity-on-demand: Dynamic beam illumination with selective precoding. In *2021 29th European Signal Processing Conference (EUSIPCO)*, pages 900–904, 2021.
- [C7] Yun Ai, Long Kong, Michael Cheffena, Symeon Chatzinotas, and Björn Ottersten. On performance characterization of cascaded multiwire-PLC/MIMO-RF communication system. In *2021 29th European Signal Processing Conference (EUSIPCO)*, pages 1656–1660, 2021.
- [C8] Trinh Van Chien, Eva Lagunas, Tung Hai Ta, Symeon Chatzinotas, and Björn Ottersten. User scheduling for precoded satellite systems with individual quality of service constraints. In *2021 IEEE 32nd Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, pages 1042–1047, 2021.
- [C9] J. Querol, J. C. Merlano-Duncan, L. Martinez-Marrero, J. Krivochiza, S. Kumar, N Maturo, A. Camps, S. Chatzinotas, and B. Ottersten. A cubesat-ready phase synchronization digital payload for coherent distributed remote sensing missions. In *2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS*, pages 7888–7891, 2021.
- [C10] Long Kong, Jiguang He, Yun Ai, Symeon Chatzinotas, and Bjorn Ottersten. Channel modeling and analysis of reconfigurable intelligent surfaces assisted vehicular networks. In *2021 IEEE International Conference on Communications Workshops (ICC Workshops)*, pages 1–6, 2021.
- [C11] Hayder Al-Hraishawi, Symeon Chatzinotas, and Bjorn Ottersten. Broadband non-geostationary satellite communication systems: Research challenges and key opportunities. In *2021 IEEE International Conference on Communications Workshops (ICC Workshops)*, pages 1–6, 2021.
- [C12] Xiaoyu Qiang, Li You, Ke-Xin Li, Christos G. Tsinos, Wenjin Wang, Xiqi Gao, and Bjorn Ottersten. Hybrid A/D precoding for downlink massive MIMO in LEO satellite communications. In *2021 IEEE International Conference on Communications Workshops (ICC Workshops)*, pages 1–6, 2021.
- [C13] Anshu Mukherjee, Bjorn Ottersten, and Le Nam Tran. Efficient numerical methods for secrecy capacity of gaussian MIMO wiretap channel. In *2021 IEEE 93rd Vehicular Technology Conference (VTC2021-Spring)*, pages 1–5, 2021.

- [C14] Sayed Hossein Dokhanchi, Bhavani Shankar Mysore R, Mari Kobayashi, and Bjorn Ottersten. Multicasting precoder design for vehicular joint radar-communication systems. In *2021 1st IEEE International Online Symposium on Joint Communications Sensing (JC&S)*, pages 1–6, 2021.
- [C15] Sumit Gautam, Symeon Chatzinotas, and Bjorn Ottersten. Energy efficiency optimization technique for SWIPT-enabled multi-group multicasting systems with heterogeneous users. In *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4880–4884, 2021.
- [C16] Sayed Hossein Dokhanchi, Bhavani Shankar Mysore, Kumar Vijay Mishra, and Bjorn Ottersten. Enhanced automotive target detection through radar and communications sensor fusion. In *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 8403–8407, 2021.
- [C17] Aakash Arora, Christos G. Tsinos, Bhavani Shankar Mysore R, Symeon Chatzinotas, and Bjorn Ottersten. Analog beamforming with antenna selection for large-scale antenna arrays. In *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4795–4799, 2021.
- [C18] Saeid Sedighi, Bhavani Shankar, Mojtaba Soltanalian, and Bjorn Ottersten. On the asymptotic performance of one-bit co-array-based MUSIC. In *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4650–4654, 2021.
- [C19] Ruizhi Hu, Bhavani Shankar Mysore Rama Rao, Ahmed Murtada, Mohammad Alaei-Kerahroodi, and Bjorn Ottersten. Widely-distributed radar imaging based on consensus ADMM. In *2021 IEEE Radar Conference (RadarConf21)*, pages 1–6, 2021.
- [C20] Trinh Van Chien, Hien Quoc Ngo, Symeon Chatzinotas, Bjorn Ottersten, and Merouane Debah. Massive MIMO under double scattering channels: Power minimization and congestion controls. In *ICC 2021 - IEEE International Conference on Communications*, pages 1–6, 2021.
- [C21] Liz Martínez Marrero, Juan Carlos Merlano Duncan, Jorge Querol, Symeon Chatzinotas, Adriano Camps, and Bjorn Ottersten. A design strategy for phase synchronization in precoding-enabled DVB-S2X user terminals. In *ICC 2021 - IEEE International Conference on Communications*, pages 1–7, 2021.
- [C22] Hayder Al-Hraishawi, Symeon Chatzinotas, and Bjorn Ottersten. Exploiting jamming attacks for energy harvesting in massive MIMO systems. In *ICC 2021 - IEEE International Conference on Communications*, pages 1–6, 2021.
- [C23] Abderrahmane Mayouche, Wallace A. Martins, Christos G. Tsinos, Symeon Chatzinotas, and Bjorn Ottersten. A novel learning-based hard decoding scheme and symbol-level precoding countermeasures. In *2021 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 1–6, 2021.
- [C24] Anyue Wang, Lei Lei, Eva Lagunas, Symeon Chatzinotas, Ana Isabel Pérez Neira, and Bjorn Ottersten. Joint beam-hopping scheduling and power allocation in NOMA-assisted satellite systems. In *2021 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 1–6, 2021.
- [C25] Sumit Kumar, Kumar Vijay Mishra, Sumit Gautam, Bhavani Shankar M. R., and Bjorn Ottersten. Interference mitigation methods for coexistence of radar and communication. In *2021 15th European Conference on Antennas and Propagation (EuCAP)*, pages 1–4, 2021.
- [C26] Long Kong, Jiguang He, Yun Ai, Symeon Chatzinotas, and Bjorn Ottersten. Effective rate evaluation with assistance of mixture gamma (MG), mixture of gaussian (MoG), and Fox’s H-function distributions. In *2021 IEEE 93rd Vehicular Technology Conference (VTC2021-Spring)*, pages 1–5, 2021.
- [C27] Sumit Gautam, Shree K. Sharma, Symeon Chatzinotas, and Bjorn Ottersten. Modeling and optimization of RF-energy harvesting-assisted quantum battery system. In *2021 IEEE 93rd Vehicular Technology Conference (VTC2021-Spring)*, pages 1–6, 2021.

- [C28] Oyebade K. Oyedotun, Abd El Rahman Shabayek, Djamila Aouada, and Bjorn Ottersten. Revisiting the training of very deep neural networks without skip connections. In *2020 25th International Conference on Pattern Recognition (ICPR)*, pages 2724–2731, 2021.
- [C29] Konstantinos Papadopoulos, Enjie Ghorbel, Djamila Aouada, and Bjorn Ottersten. Vertex feature encoding and hierarchical temporal modeling in a spatio-temporal graph convolutional network for action recognition. In *2020 25th International Conference on Pattern Recognition (ICPR)*, pages 452–458, 2021.
- [C30] Alexandre Saint, Anis Kacem, Kseniya Cherenkova, Konstantinos Papadopoulos, Julian Chibane, Gerard Pons-Moll, Gleb Gusev, David Fofi, Djamila Aouada, and Björn Ottersten. Sharp 2020: The 1st shape recovery from partial textured 3D scans challenge results. In Adrien Bartoli and Andrea Fusiello, editors, *Computer Vision – ECCV 2020 Workshops*, pages 741–755, Cham, 2020. Springer International Publishing.
- [C31] D. H. Tran, V. D. Nguyen, S. Gautam, S. Chatzinotas, T. X. Vu, and B. Ottersten. Resource allocation for UAV relay-assisted IoT communication networks. In *2020 IEEE Globecom Workshops (GC Wkshps)*, pages 1–7, 2020.
- [C32] J. C. Merlano-Duncan, J. Querol, L. Martinez-Marrero, J. Krivochiza, A. Camps, S. Chatzinotas, and B. Ottersten. SDR implementation of a testbed for synchronization of coherent distributed remote sensing systems. In *IGARSS 2020 - 2020 IEEE International Geoscience and Remote Sensing Symposium*, pages 6588–6591, 2020.
- [C33] S. Bommaraveni, T. X. Vu, S. Chatzinotas, and B. Ottersten. Active popularity learning with cache hit ratio guarantees using a matrix completion committee. In *2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications*, pages 1–5, 2020.
- [C34] A. Mostaani, T. X. Vu, S. Chatzinotas, and B. Ottersten. State aggregation for multiagent communication over rate-limited channels. In *GLOBECOM 2020 - 2020 IEEE Global Communications Conference*, pages 1–7, 2020.
- [C35] A. Haqiqatnejad, F. Kayhan, and B. Ottersten. Energy-efficient hybrid symbol-level precoding via phase shifter selection in mmWave MU-MIMO systems. In *GLOBECOM 2020 - 2020 IEEE Global Communications Conference*, pages 1–6, 2020.
- [C36] K. Papadopoulos, E. Ghorbel, O. Oyedotun, D. Aouada, and B. Ottersten. DeepVI: A novel framework for learning deep view-invariant human action representations using a single RGB camera. In *2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020)*, pages 138–145, 2020.
- [C37] K. V. Mishra, B. Shankar M. R., and B. Ottersten. Stochastic-geometry-based interference modeling in automotive radars using Matérn hard-core process. In *2020 IEEE Radar Conference (RadarConf20)*, pages 1–5, 2020.
- [C38] K. V. Mishra, M. R. B. Shankar, and B. Ottersten. Toward metacognitive radars: Concept and applications. In *2020 IEEE International Radar Conference (RADAR)*, pages 77–82, 2020.
- [C39] D. Peng, Y. Li, S. Chatzinotas, and B. Ottersten. Hybrid analog-digital precoding for mmWave coexisting in 5G-satellite integrated network. In *2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications*, pages 1–6, 2020.
- [C40] S. Mehrizi, S. Chatzinotas, and B. Ottersten. Content request prediction with temporal trend for proactive caching. In *2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications*, pages 1–7, 2020.
- [C41] S. Kisseleff, S. Chatzinotas, and B. Ottersten. Receive beamforming for ultrareliable random access based SWIPT. In *2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications*, pages 1–7, 2020.
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