

Björn Ottersten – Publications

Peer Reviewed Journal Articles

- [J1] Boxiao Shen, Yongpeng Wu, Wenjun Zhang, Symeon Chatzinotas, and Björn Ottersten. LEO satellite-enabled random access with large differential delay and doppler shift. *IEEE Transactions on Wireless Communications*, pages 1–1, 2025.
- [J2] Zijuan Deng, Chengwen Xing, Wenqian Shen, Yongpeng Wu, and Björn Ottersten. Unitary approximate message passing detector for OTSM system based on Walsh-Hadamard transform in LEO satellite communications. *IEEE Transactions on Vehicular Technology*, pages 1–16, 2025.
- [J3] Kumar Vijay Mishra, M. R. Bhavani Shankar, Nuria González-Prelcic, Mikko Valkama, Wei Yu, and Björn Ottersten. Editorial introduction to the special issue on learning-based signal processing for integrated sensing and communications. *IEEE Journal of Selected Topics in Signal Processing*, 18(5):731–736, 2024.
- [J4] Progress Zivuku, Abuzar B. M. Adam, Konstantinos Ntontin, Steven Kisseleff, Vu Nguyen Ha, Symeon Chatzinotas, and Björn Ottersten. Geographical fairness in multi-RIS-assisted networks in smart cities: A robust design. *IEEE Transactions on Communications*, pages 1–1, 2025.
- [J5] Konstantinos Ntontin, Eva Lagunas, Jorge Querol, Junaid ur Rehman, Joel Grotz, Symeon Chatzinotas, and Björn Ottersten. A vision, survey, and roadmap toward space communications in the 6G and beyond era. *Proceedings of the IEEE*, pages 1–37, 2025.
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- [J9] Boxiao Shen, Yongpeng Wu, Shiqi Gong, Heng Liu, Björn Ottersten, and Wenjun Zhang. Massive MIMO-OTFS-based random access for cooperative LEO satellite constellations. *IEEE Journal on Selected Areas in Communications*, 43(1):90–106, 2025.
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- [J12] Lin Chen, Linlong Wu, Eva Lagunas, Anyue Wang, Lei Lei, Symeon Chatzinotas, and Björn Ottersten. Joint power allocation and beam scheduling in beam-hopping satellites: A two-stage framework with a probabilistic perspective. *IEEE Transactions on Wireless Communications*, 23(10):14685–14701, 2024.
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- [I27] 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.
- [I28] 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.
- [I29] 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.
- [I30] 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.

- [I31] 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.
- [I32] 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.
- [I33] 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.
- [I34] Björn Ottersten. Array processing for wireless communications. *Antenna Systems & Technology*, 1, November 1998.
- [I35] David Asztély and Björn Ottersten. On spatio-temporal interference rejection combining with antenna arrays. In *8th DSP Workshop*, Bryce Canyon, Utah, USA, August 1998.
- [I36] 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.
- [I37] Göran Klang and Björn Ottersten. Channel estimation and interference rejection for multichannel systems. In *Proceedings Asilomar Conference on Signals, Systems & Computers*, November 1998.
- [I38] 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.
- [I39] 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.
- [I40] 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.
- [I41] 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.
- [I42] 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.
- [I43] 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.
- [I44] 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.
- [I45] 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.
- [I46] B. Ottersten and T. Kailath. “ESPRIT for Wideband Signals”. In *Proc. 21st Asilomar Conf. Sig., Syst., Comput.*, Monterey, CA, November 1987.

Björn Ottersten – Plenary/Keynote Speaker

- [K1] Björn Ottersten. Low-earth orbit satellite constellations towards global communication network connectivity. In *International Conference on Computing, Networking and Communications (ICNC 2025)*, Honolulu, Hawaii, February 2025. Invited speaker.
- [K2] Björn Ottersten. Low-earth orbit satellite constellations - a game-changer for global connectivity? In *6G Ubiquitous Space Air Ground Integrated Communication (USGIC) Workshop*, Rhodes, Greece, June 2023. Keynote speaker.
- [K3] 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.
- [K4] 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.
- [K5] Björn Ottersten. Multiantenna precoding in wireless communication systems. In *IEEE International Conference on Acoustics, Speech, and Signal Processing*, Barcelona, Spain, May 2020. Plenary speaker.
- [K6] Björn Ottersten. Signal processing challenges in satellite communication networks. In *Comin-Labs Days*, Rennes, France, November 2016. Plenary speaker.
- [K7] Björn Ottersten. Signal processing challenges in satellite communication networks. In *Tyrrhenian International Workshop on Digital Communications (TIW16)*, Livorno, Italy, September 2016. Keynote speaker.
- [K8] Björn Ottersten. Satellite communication networks - future challenges. In *Twelfth International Symposium on Wireless Communication Systems (ISWCS)*, Brussels, Belgium, August 2015. Keynote speaker.
- [K9] 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.
- [K10] 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.
- [K11] Björn Ottersten. Multi-antenna signal processing in satellite communications. In *Statistics, Optimization, and Signal Processing (STATOS)*, Darmstadt, Germany, June 2013. Plenary speaker.
- [K12] Björn Ottersten. Satellite communications - signal processing challenges. In *XXXIII Finnish URSI Convention on Radio Science*, Helsinki, Finland, April 2013. Plenary speaker.
- [K13] 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.
- [K14] 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.
- [K15] 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.
- [K16] Björn Ottersten. Signal processing challenges in mobile communications. In *Wireless World Research Forum*, Stockholm, Sweden, October 2008. Plenary speaker.

- [K17] Björn Ottersten. The evolution of mobile communications - a signal processing perspective. In *Smart Radios and Wireless Research*, Helsinki, Finland, October 2008. Plenary speaker.
- [K18] Björn Ottersten. The evolution of mobile communications - a signal processing perspective. In *EUSIPCO'08, European Signal Processing Conference*, Aalborg, Denmark, August 2008. Plenary speaker.
- [K19] 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.
- [K20] Björn Ottersten. Space-time processing and coding for wireless communications, December 2003. Plenary speaker at FTC 2003.
- [K21] Björn Ottersten. Spatio-temporal processing and modeling in wireless systems, October 2002. Plenary speaker at URSI National Convention on Radio Science, Espoo, Finland.
- [K22] Björn Ottersten. MIMO channel modeling and multi-user MIMO systems, October 2002. Panel Speaker at 5th International Symposium on Wireless Personal Multimedia Communications (WPNC '2002).
- [K23] Björn Ottersten. Adaptive antennas in wideband radio access networks, June 2002. Planery Speaker at RadioVetenskap och Kommunikation (RVK).
- [K24] Björn Ottersten. Spatial channel modeling for wireless systems, December 2001. Planeray Speaker at FTC 2001.
- [K25] Björn Ottersten. Affordable wireless infrastructures and services, December 2001. Keynote address, FTC 2001.
- [K26] Björn Ottersten. Antenna arrays for wireless communications – models and algorithms, December 1999. Plenary speaker at Identification and Control of Complex Systems (ICCoS).
- [K27] 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.
- [K28] 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.
- [K29] Björn Ottersten. Spatial processing in wireless communication systems. In *Workshop on Advanced Signal Processing Applications in Wireless Communications*, Philadelphia, PA, November 1996. Plenary speaker.
- [K30] Björn Ottersten. Sensor array signal processing with application to wireless communications. In *RadioVetenskap och Kommunikation (RVK)*, June 1996. Plenary speaker.
- [K31] 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.
- [K32] Björn Ottersten. “antenna arrays in mobile communications”. In *Communications, Computing, Control, and Signal Processing: 2000*, Stanford, CA, April 1995.
- [K33] Björn Ottersten. Subspace algorithms in systems identification and telecommunication applications. In *14th Benelux Meeting on Systems and Control*, Houthalen, Belgium, May 1995. Keynote speaker.
- [K34] 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] Arsham Mostaani, Thang X. Vu, Hamed Habibi, Symeon Chatzinotas, and Björn Ottersten. Scalable quantification of the value of information for multi-agent communications and control co-design. In *GLOBECOM 2023 - 2023 IEEE Global Communications Conference*, pages 3729–3734, 2023.
- [C2] Neha Sharma, Sumit Gautam, Symeon Chatzinotas, and Björn Ottersten. On optimizing RIS-aided SWIPT-IoTs with power splitting-based non-linear energy harvesting. In *GLOBECOM 2023 - 2023 IEEE Global Communications Conference*, pages 619–624, 2023.
- [C3] Boxiao Shen, Yongpeng Wu, Wenjun Zhang, Symeon Chatzinotas, and Björn Ottersten. Joint device identification, channel estimation, and signal detection for LEO satellite-enabled random access. In *GLOBECOM 2023 - 2023 IEEE Global Communications Conference*, pages 679–684, 2023.
- [C4] Mostafa Samy, Hayder Al-Hraishawi, Steven Kisseleff, Symeon Chatzinotas, and Björn Ottersten. Multiple RIS-assisted cooperative NOMA with user selection. In *GLOBECOM 2023 - 2023 IEEE Global Communications Conference*, pages 1405–1410, 2023.
- [C5] Juan Carlos Merlano Duncan, Vu Nguyen Ha, Jevgenij Krivochiza, Rakesh Palisetty, Geoffrey Eappen, Juan Andres Vasquez, Wallace Alves Martins, Symeon Chatzinotas, and Björn Ottersten. Harnessing the power of swarm satellite networks with wideband distributed beamforming. In *2023 IEEE 34th Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, pages 1–6, 2023.
- [C6] Ke He, Thang X. Vu, Symeon Chatzinotas, and Björn Ottersten. Fast optimal antenna selection for massive MIMO. In *2023 IEEE 24th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pages 186–190, 2023.
- [C7] Sovit Bhandari, Thang X. Vu, Symeon Chatzinotas, and Björn Ottersten. Efficient content caching for delivery time minimization in the LEO satellite networks. In *2023 IEEE International Conference on Communications Workshops (ICC Workshops)*, pages 1246–1252, 2023.
- [C8] Lin Chen, Eva Lagunas, Lei Lei, Symeon Chatzinotas, and Björn Ottersten. Adaptive resource allocation for satellite illumination pattern design. In *2022 IEEE 96th Vehicular Technology Conference (VTC2022-Fall)*, pages 1–6, 2022.
- [C9] Wali Ullah Khan, Zain Ali, Eva Lagunas, Symeon Chatzinotas, and Björn Ottersten. Rate splitting multiple access for cognitive radio GEO-LEO co-existing satellite networks. In *GLOBECOM 2022 - 2022 IEEE Global Communications Conference*, pages 5165–5170, 2022.
- [C10] T.S. Abdu, S. Kisseleff, E. Lagunas, S. Chatzinotas, and B. Ottersten. Joint carrier allocation and precoding optimization for interference-limited GEO satellite. In *39th International Communications Satellite Systems Conference (ICSSC 2022)*, volume 2022, pages 128–132, 2022.
- [C11] Wali Ullah Khan, Eva Lagunas, Asad Mahmood, Symeon Chatzinotas, and Björn Ottersten. Energy-efficient RIS-enabled NOMA communication for 6G LEO satellite networks. In *2023 IEEE 97th Vehicular Technology Conference (VTC2023-Spring)*, pages 1–6, 2023.
- [C12] Asad Mahmood, Thang X. Vu, Shree Krishna Sharma, Symeon Chatzinotas, and Björn Ottersten. Multi-objective optimization for 3D placement and resource allocation in OFDMA-based multi-UAV networks. In *2023 IEEE 97th Vehicular Technology Conference (VTC2023-Spring)*, pages 1–6, 2023.
- [C13] Ehsan Raei, Mohammad Alae-Kerahroodi, Bhavani Shankar, and Björn Ottersten. Range-ISL minimization and spectral shaping in MIMO radar systems via waveform design. In *ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 1–5, 2023.

- [C14] Moein Ahmadi, Mohammad Alae-Kerahroodi, Bhavani Shankar M. R., and Björn Ottersten. Subspace-based detector for distributed mmwave MIMO radar sensors. In *ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 1–5, 2023.
- [C15] Linlong Wu, Bowen Wang, Ziyang Cheng, Bhavani Shankar M. R., and Björn Ottersten. Joint symbol-level precoding and sub-block-level RIS design for dual-function radar-communications. In *ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 1–5, 2023.
- [C16] Arsham Mostaani, Thang X. Vu, Symeon Chatzinotas, and Björn Ottersten. Centralized control of a multi-agent system via distributed and bit-budgeted communications. In *2023 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 1–6, 2023.
- [C17] Eva Lagunas, Ana Perez-Neira, Joel Grotz, Symeon Chatzinotas, and Bjorn Ottersten. Beam splash mitigation for NGSO spectrum coexistence between feeder and user downlink. In *WSA & SCC 2023; 26th International ITG Workshop on Smart Antennas and 13th Conference on Systems, Communications, and Coding*, pages 1–6, 2023.
- [C18] Jorge L. González, Diego Vázquez, Robson Moreno, Juan Duncan, Ole K. Jensen, Symeon Chatzinotas, and Björn Ottersten. Stacked-cascade current steering architecture for gallium nitride variable-gain LNAs. In *2023 IEEE 14th Latin America Symposium on Circuits and Systems (LASCAS)*, pages 1–4, 2023.
- [C19] Wali Ullah Khan, Eva Lagunas, Asad Mahmood, Zain Ali, Symeon Chatzinotas, Björn Ottersten, and Octavia A. Dobre. Integration of backscatter communication with multi-cell NOMA: A spectral efficiency optimization under imperfect SIC. In *2022 IEEE 27th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD)*, pages 147–152, 2022.
- [C20] Tedros Salih Abdu, Steven Kisseleff, Eva Lagunas, Symeon Chatzinotas, and Björn Ottersten. Energy efficient sparse precoding design for satellite communication system. In *2022 IEEE 96th Vehicular Technology Conference (VTC2022-Fall)*, pages 1–6, 2022.
- [C21] Uday Kumar Singh, M. R. Bhavani Shankar, and B. Ottersten. Opportunistic localization using LEO signals. In *2022 56th Asilomar Conference on Signals, Systems, and Computers*, pages 894–899, 2022.
- [C22] Asad Mahmood, Thang X. Vu, Wali Ullah Khan, Symeon Chatzinotas, and Björn Ottersten. Optimizing computational and communication resources for MEC network empowered UAV-RIS communication. In *2022 IEEE Globecom Workshops (GC Wkshps)*, pages 974–979, 2022.
- [C23] Ke He, Thang X. Vu, Symeon Chatzinotas, and Björn Ottersten. Learning-based joint channel prediction and antenna selection for massive MIMO with partial CSI. In *2022 IEEE Globecom Workshops (GC Wkshps)*, pages 178–183, 2022.
- [C24] Zaid Abdullah, George C. Alexandropoulos, Steven Kisseleff, Symeon Chatzinotas, and Björn Ottersten. Combining relaying and reflective surfaces: Power consumption and energy efficiency analysis. In *2022 IEEE Globecom Workshops (GC Wkshps)*, pages 31–36, 2022.
- [C25] Deyi Peng, Stavros Domouchtsidis, Symeon Chatzinotas, Yun Li, and Bjorn Ottersten. Non-orthogonal multicast and unicast robust beamforming in integrated terrestrial-satellite networks. In *GLOBECOM 2022 - 2022 IEEE Global Communications Conference*, pages 2044–2049, 2022.
- [C26] Trinh Van Chien, Eva Lagunas, Tiep M. Hoang, Symeon Chatzinotas, Björn Ottersten, and Lajos Hanzo. Power allocation for space-terrestrial cooperation systems with statistical CSI. In *GLOBECOM 2022 - 2022 IEEE Global Communications Conference*, pages 3284–3289, 2022.
- [C27] Rakesh Palisetty, Geoffrey Eappen, Jorge Luis Gonzalez Rios, Juan Carlos Merlano Duncan, Stavros Domouchtsidis, Symeon Chatzinotas, Björn Ottersten, Bingen Cortazar, Salvatore D’Addio, and Piero Angeletti. Area-power analysis of FFT based digital beamforming for GEO, MEO, and LEO scenarios. In *2022 IEEE 95th Vehicular Technology Conference: (VTC2022-Spring)*, pages 1–5, 2022.

- [C28] Van-Phuc Bui, Trinh Van Chien, Eva Lagunas, J el Grotz, Symeon Chatzinotas, and Bj rn Ottersten. Learning to optimize: Balancing two conflict metrics in MB-HTS networks. In *2022 11th Advanced Satellite Multimedia Systems Conference and the 17th Signal Processing for Space Communications Workshop (ASMS/SPSC)*, pages 1–7, 2022.
- [C29] Van-Phuc Bui, Trinh Van Chien, Eva Lagunas, J el Grotz, Symeon Chatzinotas, and Bj rn Ottersten. Joint beam placement and load balancing optimization for non-geostationary satellite systems. In *2022 IEEE International Mediterranean Conference on Communications and Networking (MeditCom)*, pages 316–321, 2022.
- [C30] Christos G. Tsinos, Aakash Arora, Symeon Chatzinotas, and Bj rn Ottersten. Dual-function radar-communication systems with constant-modulus and similarity constraints. In *2022 IEEE 12th Sensor Array and Multichannel Signal Processing Workshop (SAM)*, pages 231–235, 2022.
- [C31] Wali Ullah Khan, Muhammad Ali Jamshed, Asad Mahmood, Eva Lagunas, Symeon Chatzinotas, and Bj rn Ottersten. Backscatter-aided NOMA V2X communication under channel estimation errors. In *2022 IEEE 95th Vehicular Technology Conference: (VTC2022-Spring)*, pages 1–6, 2022.
- [C32] Wali Ullah Khan, Eva Lagunas, Asad Mahmood, Basem M. ElHalawany, Symeon Chatzinotas, and Bj rn Ottersten. When RIS meets GEO satellite communications: A new sustainable optimization framework in 6G. In *2022 IEEE 95th Vehicular Technology Conference: (VTC2022-Spring)*, pages 1–6, 2022.
- [C33] Thang X. Vu, Nicola Maturo, Symeon Chatzinotas, Joel Grotz, Tom Christophory, and Bj rn Ottersten. Dynamic bandwidth allocation and edge caching optimization for nonlinear content delivery through flexible multibeam satellites. In *ICC 2022 - IEEE International Conference on Communications*, pages 1143–1148, 2022.
- [C34] Zaid Abdullah, Steven Kisseleff, Konstantinos Ntontin, Wallace Alves Martins, Symeon Chatzinotas, and Bj rn Ottersten. Double-RIS communication with df relaying for coverage extension: Is one relay enough? In *ICC 2022 - IEEE International Conference on Communications*, pages 2639–2644, 2022.
- [C35] Zaid Abdullah, Steven Kisseleff, Konstantinos Ntontin, Wallace Alves Martins, Symeon Chatzinotas, and Bj rn Ottersten. Successive decode-and-forward relaying with reconfigurable intelligent surfaces. In *ICC 2022 - IEEE International Conference on Communications*, pages 2633–2638, 2022.
- [C36] Long Kong, Steven Kisseleff, Symeon Chatzinotas, Bjrjn Ottersten, and Melike Erol-Kantarci. On the impacts of phase shifting design and eavesdropping uncertainty on secrecy metrics of RIS-aided systems. In *2022 Joint European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit)*, pages 494–499, 2022.
- [C37] Xiaoyu Qiang, Li You, Christos G. Tsinos, Wenjin Wang, Xiqi Gao, and Bj rn Ottersten. Joint communications and sensing for hybrid massive MIMO LEO satellite systems with beam squint. In *2022 IEEE International Conference on Communications Workshops (ICC Workshops)*, pages 963–968, 2022.
- [C38] Progress Zivuku, Steven Kisseleff, Van-Dinh Nguyen, Konstantinos Ntontin, Wallace A. Martins, Symeon Chatzinotas, and Bj rn Ottersten. Maximizing the number of served users in a smart city using reconfigurable intelligent surfaces. In *2022 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 494–499, 2022.
- [C39] Linlong Wu, Jisheng Dai, Bhavani Shankar M. R., Ruizhi Hu, and Bj rn Ottersten. Recurrent design of probing waveform for sparse bayesian learning based DOA estimation. In *ICASSP 2022 - 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4978–4982, 2022.
- [C40] Trinh Van Chien, Lam Thanh Tu, Dinh-Hieu Tran, Hieu Van Nguyen, Symeon Chatzinotas, Marco Di Renzo, and Bj rn Ottersten. Controlling smart propagation environments: Long-term versus short-term phase shift optimization. In *ICASSP 2022 - 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 5348–5352, 2022.

- [C41] Thomas Feuillen, Mohammad Alae-Kerahroodi, Ayush Bhandari, Bhavani Shankar M. R., and Björn Ottersten. Unlimited sampling for FMCW radars: A proof of concept. In *2022 IEEE Radar Conference (RadarConf22)*, pages 1–5, 2022.
- [C42] Long Kong, Steven Kisseleff, Symeon Chatzinotas, Björn Ottersten, and Melike Erol-Kantarci. Effective rate of RIS-aided networks with location and phase estimation uncertainty. In *2022 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 2071–2075, 2022.
- [C43] Liz Martinez Marrero, Juan Duncan, Jorge Querol, Nicola Maturo, Jevgenij Krivochiza, Symeon Chatzinotas, and Björn Ottersten. Differential phase compensation in over-the-air precoding test-bed for a multi-beam satellite. In *2022 IEEE Wireless Communications and Networking Conference (WCNC)*, pages 1325–1330, 2022. **Best Paper Award.**
- [C44] Oltjon Kodheli, Jorge Querol, Abdelrahman Astro, Sofia Coloma, Loveneesh Rana, Zhanna Bokal, Sumit Kumar, Carol Martinez Luna, Jan Thoemel, Juan Duncan, Miguel Olivares Mendez, Symeon Chatzinotas, and Björn Ottersten. 5G space communications lab: Reaching new heights. In *6th IEEE International Workshop on Wireless Communications and Networking in Extreme Environments (WCNEE)*, pages 1–1, 2022. **Best Paper Award, Runner-Up.**
- [C45] Trinh Van Chien, Hien Quoc Ngo, Symeon Chatzinotas, Marco Di Renzo, and Björn Ottersten. RIS and cell-free massive MIMO: A marriage for harsh propagation environments. In *2021 IEEE Global Communications Conference (GLOBECOM)*, pages 01–06, 2021.
- [C46] Xiaoyu Qiang, Li You, Ke-Xin Li, Christos G. Tsinos, Wenjin Wang, Xiqi Gao, and Björn Ottersten. Twin-resolution phase shifters based massive MIMO hybrid precoding for LEO SATCOM with nonlinear PAs. In *2021 IEEE Global Communications Conference (GLOBECOM)*, pages 1–6, 2021.
- [C47] Anyue Wang, Lei Lei, Eva Lagunas, Symeon Chatzinotas, and Björn Ottersten. Dual-DNN assisted optimization for efficient resource scheduling in NOMA-enabled satellite systems. In *2021 IEEE Global Communications Conference (GLOBECOM)*, pages 1–6, 2021.
- [C48] 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.
- [C49] 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.
- [C50] 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.
- [C51] 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.
- [C52] 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.
- [C53] 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.
- [C54] 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.

- [C55] 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.
- [C56] 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.
- [C57] 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.
- [C58] 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.
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