# List of Publications

**Name:** Olav Emerik Tirkkonen

**Date:** April 26, 2023

## A Peer Reviewed Scientific Articles

### A.1 Peer Reviewed Journal Articles

[1] P. Kazemi, H. Al-Tous, T. Ponnada, C. Studer, and O. Tirkkonen, "Beam SNR Prediction Using Channel Charting," IEEE Trans. Vehic. Tech., in press.

[2] U. Singh, H. Al-Tous, O. Tirkkonen, M. Bhatnagar, "Performance Analysis of the STAR-RIS-Assisted Downlink NOMA Communication System with MRC," IEEE Commun. Lett., in press.

[3] J. Liao, R. Vehkalahti, T. Pllaha, W. Han and O. Tirkkonen, "Modular CSI Quantization for FDD Massive MIMO Communication," IEEE Trans. Wireless Commun., in press.

[4] P. Ferrand, M. Guillaud, C. Studer and O. Tirkkonen, "Wireless Channel Charting: Theory, Practice, and Applications", IEEE Commun. Mag., in press.

[5] N. Malm, K. Ruttik and O. Tirkkonen, "Midhaul Performance Modelling Using Commodity Hardware C-RAN Testbed," Wireless Personal Commun., in press.

[6] M. Amidzadeh, H. Al-Tous, G. Caire and O. Tirkkonen, "Caching in Cellular Networks Based on Multipoint Multicast Transmissions," IEEE Trans. Wireless Commun., vol. 22, no. 4, pp. 2393-2408, April 2023.

[7] J. Lietzen and O. Tirkkonen, "Secret Key Generation between Ambient Backscatter Devices," IEEE Access, vol. 11, pp. 13456-13468, Feb 2023.

[8] L. Ribeiro, M. Leinonen, H. Al-Tous, O. Tirkkonen, M. Juntti, "Channel Charting Aided Pilot Reuse for Massive MIMO systems with Spatially Correlated Channels," IEEE Open J. Commun. Soc., vol. 3, pp. 2390-2406, Dec 2022.

[9] T. Pllaha, O. Tirkkonen, R. Calderbank, "Binary subspace chirps," IEEE Trans. Info. Theory, vol. 68, no. 12, pp. 7735-7752, Dec 2022.

[10] H. Song, T. Goldstein, X. You, C. Zhang, O. Tirkkonen, and C. Studer, "Joint Channel Estimation and Data Detection in Cell-Free Massive MU-MIMO Systems," IEEE Trans. Wireless Commun. vol. 21, no. 6, pp. 4068-4084, June 2022.

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[15] H. Al-Tous, T. Ponnada, C. Studer, O. Tirkkonen, "Multipoint Channel Charting Based Radio Resource Management for V2V Communications", EURASIP J. Wireless Commun. and Netw., Article n. 132, 20 pp., June 2020.

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## A.2 Book Chapters

[100] M.A. Uusitalo, O. Tirkkonen, L. Campoy, K.W. Sung, H. Schotten and K. Balachandran, "Spectrum," Chapter 12, 5G Mobile and Wireless Communications Technology, eds. Osseiran, Monserrat, Marsch, pp. 336-356, Cambridge University Press, 2016.

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## A.4 Peer Reviewed International Conference Papers

[105] A. Srinivasan, M. Amidzadeh, J. Zhang, and O. Tirkkonen, "Cache Policy Design via Reinforcement Learning for Cellular Networks in Non-Stationary Environment," IEEE ICC Workshops, 6 pp., May 2023.

[106] M. Bayanifar, R. Calderbank and O. Tirkkonen, "Performance Analysis of Binary Chirp Decoding," IEEE ITW, 6 pp., April 2023.

[107] M. Amidzadeh, O. Tirkkonen and G. Caire, "Optimal Bandwidth Allocation for Multicast-Cache-Aided On-demand Streaming in Wireless Networks," IEEE GLOBECOM, 6 pp,. Dec. 2022.

[108] H. Al-Tous, P. Kazemi, C. Studer, O. Tirkkonen, "Channel Charting with Angle-Delay-Power-Profile Features and Earth-Mover Distance," Asilomar Conf., 7 pp, Oct 2022.

[109] P. Kazemi, H. Al-Tous, C. Studer and O. Tirkkonen, "User-Side Indoor Localization Using CSI Fingerprinting," IEEE SPAWC, 5 pp., July 2022.

[110] J. Lietzen, R. Vehkalahti and O. Tirkkonen, "Secret Keys from Parity Bits in the Satellite Setting, IEEE ISIT, 6 pp, June 2022.

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[112] L. Zhou, O. Tirkkonen, Ü. Parts, S. Khosravirad, P. Baracca, D. Korpi and M. Uusitalo, "Dual-mode Ultra Reliable Low Latency Communications for Industrial Wireless Control," IEEE VTC, 7 pp., Jun. 2022.

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[114] J. Liao and Olav Tirkkonen, "Coded Caching in Presence of User Inactivity," IEEE WCNC, 6pp., Apr 2022.

[115] M. Amidzadeh, H. Al-Tous, O. Tirkkonen and G. Caire, "Cellular Traffic Offloading with Optimized Compound Single-point Unicast and Cache-based Multipoint Multicast," IEEE WCNC, 6pp., Apr 2022.

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