Publications List

Random Line-of-Sight (RanLOS) references

- [1] P.-S. Kildal, U. Carlberg, and J. Carlsson, “Definition of antenna diversity gain in user-distributed 3D-random line-of-sight,” J. Electromagn. Eng. Sci., vol. 13, no. 2, pp. 86–92, 2013.

- [2] P.-S. Kildal and J. Carlsson, “New approach to OTA testing: RIMP and pure-LOS reference environments & a hypothesis,” in Antennas and Propagation (EuCAP), 2013 7th European Conference on, 2013, pp. 315–318.

- [3] P.-S. Kildal, A. A. Glazunov, J. Carlsson, and A. Majidzadeh, “Cost-effective measurement setups for testing wireless communication to vehicles in reverberation chambers and anechoic chambers,” in Antenna Measurements & Applications (CAMA), 2014 IEEE Conference on, 2014, pp. 1–4.

- [4] P.-S. Kildal, Xiaoming Chen, M. Gustafsson, and Zhengzhao Shen, “MIMO Characterization on System Level of 5G Microbase Stations Subject to Randomness in LOS,” IEEE Access, vol. 2, pp. 1062–1075, 2014, doi: 10.1109/ACCESS.2014.2358937.

- [5] A. A. Glazunov, P.-S. Kildal, J. Carlsson, M. S. Kildal, and S. Mansouri, “Impact of the spatial user distribution on the coverage antenna pattern of maximum ratio combining in random line-of-sight,” in Antennas and Propagation (EuCAP), 2015 9th European Conference on, 2015, pp. 1–5.

- [6] A. A. Glazunov, P.-S. Kildal, and M. S. Kildal, “Devising a horizontal chamber array for automotive OTA tests in Random Line-Of-Sight,” 2015 Int. Symp. Antennas Propag. ISAP, pp. 1–4, 2015.

- [7] M. S. Kildal, J. Kvarnstrand, J. Carlsson, A. A. Glazunov, A. Majidzadeh, and P.-S. Kildal, “Initial measured OTA throughput of 4G LTE communication to cars with roof-mounted antennas in 2D random-LOS,” in Antennas and Propagation (ISAP), 2015 International Symposium, 2015, pp. 1–4.

- [8] P.-S. Kildal, “Preparing for GBit/s coverage in 5G: Massive MIMO, PMC packaging by gap waveguides, OTA testing in random-LOS,” in 2015 Loughborough Antennas & Propagation Conference (LAPC), Loughborough, Leicestershire, United Kingdom, Nov. 2015, pp. 1–5. doi: 10.1109/LAPC.2015.7365987.

- [9] A. A. Glazunov, A. Razavi, and P.-S. Kildal, “Simulations of a planar array arrangement for automotive Random-LOS OTA testing,” in 2016 10th European Conference on Antennas and Propagation (EuCAP), Davos, Switzerland, Apr. 2016, pp. 1–5. doi: 10.1109/EuCAP.2016.7481285.

- [10] M. S. Kildal, J. Carlsson, A. A. Glazunov, and P.-S. Kildal, “Measured LTE throughput for SISO, SIMO and MIMO in Polarization-Random-LOS,” in Antennas and Propagation (APSURSI), 2016 IEEE International Symposium on, 2016, pp. 323–324.

- [11] M. S. Kildal, A. A. Glazunov, J. Carlsson, J. Kvarnstrand, A. Majidzadeh, and P.-S. Kildal, “Measured Probabilities of Detection for 1-and 2 Bitstreams of 2-port Car-roof Antenna in RIMP and Random-LOS,” in Antennas and Propagation (EuCAP), 2016 10th European Conference on, 2016, pp. 1–5.

- [12] A. Razavi, A. A. Glazunov, P.-S. Kildal, and R. Maaskant, "Array-fed cylindrical reflector antenna for automotive OTA tests in Random Line-Of-Sight," in 2016 10th European Conference on Antennas and Propagation (EuCAP), Davos, Switzerland, Apr. 2016, pp. 1–4. doi: 10.1109/EuCAP.2016.7481689.

- [13] A. A. Glazunov, "Test zone characterization in an automotive random-LOS OTA test setup," in 2017 IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (APWC), Verona, Italy, Sep. 2017, pp. 170–173. doi: 10.1109/APWC.2017.8062271.

- [14] M. S. Kildal, A. A. Glazunov, J. Carlsson, and A. Majidzadeh, "Evaluation of a simplified Random-LOS measurement setup for characterizing antennas on cars," in Antennas and Propagation (EUCAP), 2017 11th European Conference on, 2017, pp. 3007–3011.

- [15] M. S. Kildal, A. A. Glazunov, and J. Carlsson, "A Numerical Analysis of the Random-LOS Measurement Accuracy for Vehicle Applications," in 12th European Conference on Antennas and Propagation (EuCAP 2018), London, UK, 2018, p. 496 (3 pp.)-496 (3 pp.). doi: 10.1049/cp.2018.0855.

- [16] M. S. Kildal, J. Carlsson, and A. Alayón Glazunov, "Measurements and Simulations for Validation of the Random-LOS Measurement Accuracy for Vehicular OTA Applications," IEEE Trans. Antennas Propag., vol. 66, no. 11, pp. 6291–6299, Nov. 2018, doi: 10.1109/TAP.2018.2869133.

- [17] S. M. Moghaddam, A. A. Glazunov, and J. Yang, "Wideband Dual-Polarized Linear Array Antenna for Random-LOS OTA Measurement," IEEE Trans. Antennas Propag., vol. 66, no. 5, pp. 2365–2373, May 2018, doi: 10.1109/TAP.2018.2814077.

- [18] A. A. Glazunov, M. S. Kildal, and J. Carlsson, "Impact of Azimuthal Antenna Pattern Sampling and Variation on Throughput Measurements," in 2019 IEEE Conference on Antenna Measurements & Applications (CAMA), Kuta, Bali, Indonesia, Oct. 2019, pp. 167–170. doi: 10.1109/CAMA47423.2019.8959570.

- [19] M. S. Kildal, A. Razavi, J. Carlsson, and A. A. Glazunov, "Test Zone Verification Procedures in a Random-LOS Measurement Setup," in 13th European Conference on Antennas and Propagation (EuCAP 2019), 2019, pp. 1–5.

- [20] M. S. Kildal, S. Mansouri Moghaddam, A. Razavi, J. Carlsson, J. Yang, and A. Alayon Glazunov, "Verification of the Random Line-of-Sight Measurement Setup at 1.5-3 GHz Including MIMO Throughput Measurements of a Complete Vehicle," IEEE Trans. Veh. Technol., vol. 69, no. 11, pp. 13165–13179, Nov. 2020, doi: 10.1109/TVT.2020.3021250.

- [21] M. Schilliger Kildal, "The random line-of-sight over-the-air measurement system", PhD thesis, Gothenburg, Sweden: Chalmers University of Technology, 2020.

- [22] M. S. Kildal, S. M. Moghaddam, J. Carlsson, J. Yang, and A. A. Glazunov, "Evaluation of a Random Line-of-Sight Over-the-Air Measurement Setup at 28 GHz," IEEE Trans. Antennas Propag., vol. 69, no. 8, pp. 5008–5020, Aug. 2021, doi: 10.1109/TAP.2021.3076273.

- [23] J. Carlsson, "A Cost-Effective Method to Measure Vehicle Antenna Radiation Patterns and Data Throughput," Microwave Journal, Sep. 2023, [Online]. Available: https://www.microwavejournal.com/articles/40782-a-cost-effective-method-to-measure-vehicle-antenna-radiation-patterns-and-data-throughput