

Publications by Christian Bettstetter

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Journals and Magazines

— Articles —

- [J1] C. Bettstetter, H.-J. Vögel, and J. Eberspächer, “GSM phase 2+ general packet radio service GPRS: Architecture, protocols, and air interface,” *IEEE Communications Surveys*, vol. 2, qu. III 1999.
- [J2] C. Weiß, C. Bettstetter, and S. Riedel, “Code construction and decoding of parallel concatenated tail-biting codes,” *IEEE Transactions on Information Theory*, vol. 47, pp. 368–388, Jan. 2001.
- [J3] C. Bettstetter, “Mobility modeling in wireless networks: Categorization, smooth movement, and border effects,” *ACM Mobile Computing and Communications Review*, vol. 5, pp. 55–67, July 2001.
- [J4] W. Kellerer, C. Bettstetter, C. Schwingenschlögl, P. Sties, K.-E. Steinberg, and H.-J. Vögel, “(Auto)Mobile communication in a heterogeneous and converged world,” *IEEE Personal Communications Mag.*, vol. 8, pp. 41–47, Dec. 2001.
- [J5] C. Bettstetter, G. Resta, and P. Santi, “The node distribution of the random waypoint mobility model for wireless ad hoc networks,” *IEEE Transactions on Mobile Computing*, vol. 2, pp. 257–269, July 2003.
- [J6] C. Bettstetter, “On the connectivity of ad hoc networks,” *The Computer Journal*, vol. 47, pp. 432–447, July 2004. Oxford University Press.
- [J7] C. Bettstetter, H. Hartenstein, and X. Pérez-Costa, “Stochastic properties of the random waypoint mobility model,” *ACM Wireless Networks*, vol. 10, pp. 555–567, Sept. 2004.
- [J8] C. Prehofer and C. Bettstetter, “Self-organization in communication networks: Principles and design paradigms,” *IEEE Communications Mag.*, vol. 43, pp. 78–85, July 2005.

- [J9] C. Bettstetter and C. Hartmann, “Connectivity of wireless multihop networks in a shadow fading environment,” *ACM Wireless Networks*, vol. 11, pp. 571–589, Sept. 2005.
- [J10] R. Vilzmann, C. Bettstetter, and C. Hartmann, “BeamMAC: A new paradigm for medium access in wireless networks,” *Intern. Journal of Electronics and Communications (AEÜ)*, vol. 60, pp. 3–7, Jan. 2006. Invited paper.
- [J11] P. Hofmann, C. Bettstetter, and C. Prehofer, “Performance impact of multihop handovers in an IP-based multihop radio access network,” *ACM Mobile Computing and Communications Review*, vol. 10, pp. 13–25, Apr. 2006.
- [J12] E. Carlson, C. Prehofer, C. Bettstetter, H. Karl, and A. Wolisz, “A distributed end-to-end reservation protocol for IEEE 802.11-based wireless mesh networks,” *IEEE Journal on Selected Areas in Communications (JSAC)*, vol. 24, pp. 2018–2027, Nov. 2006.
- [J13] A. Tyrrell, G. Auer, and C. Bettstetter, “Biologically inspired synchronization for wireless networks,” in *Advances in Biologically Inspired Information Systems: Models, Methods, and Tools* (I. C. F. Dressler, ed.), vol. 69 of *Studies Computat. Intell.*, pp. 47–62, Springer, 2007.
- [J14] W. Elmenreich, N. Marchenko, H. Adam, C. Hofbauer, G. Brandner, C. Bettstetter, and M. Huemer, “Building blocks of cooperative relaying in wireless systems,” *e & i Elektrotechnik und Informationstechnik*, vol. 126, pp. 353–359, Oct. 2008.
- [J15] A. Tyrrell, G. Auer, and C. Bettstetter, “Emergent slot synchronization in wireless networks,” *IEEE Transactions on Mobile Computing*, vol. 9, pp. 719–732, May 2010.
- [J16] S. Crisóstomo, U. Schilcher, C. Bettstetter, and J. Barros, “Probabilistic flooding in stochastic networks: Analysis of global information outreach,” *Computer Networks*, vol. 56, pp. 142–156, Jan. 2012.
- [J17] J. Klinglmayr, C. Kirst, C. Bettstetter, and M. Timme, “Guaranteeing global synchronization in networks with stochastic interactions,” *New Journal of Physics*, vol. 14, July 2012.
- [J18] J. Klinglmayr and C. Bettstetter, “Self-organizing synchronization with inhibitory-coupled oscillators: Convergence and robustness,” *ACM Transactions on Autonomous and Adaptive Systems*, vol. 7, pp. 30:1–23, Sept. 2012.
- [J19] U. Schilcher, C. Bettstetter, and G. Brandner, “Temporal correlation of interference in wireless networks with Rayleigh block fading,” *IEEE Transactions on Mobile Computing*, vol. 11, pp. 2109–2120, Dec. 2012.

- [J20] H. Adam, E. Yanmaz, and C. Bettstetter, “Contention-based estimation of neighbor cardinality,” *IEEE Transactions on Mobile Computing*, vol. 12, pp. 542–555, Mar. 2013.
- [J21] G. Brandner, U. Schilcher, and C. Bettstetter, “Contention-based node selection with applications to relay communications and load balancing,” *EURASIP Journal on Wireless Communications and Networking*, Aug. 2013.
- [J22] N. Marchenko and C. Bettstetter, “Cooperative ARQ with relay selection: An analytical framework using semi-Markov processes,” *IEEE Transactions on Vehicular Technology*, vol. 63, pp. 178–190, Jan. 2014.
- [J23] T. Andre, K. A. Hummel, A. P. Schoellig, E. Yanmaz, M. Asadpour, C. Bettstetter, P. Grippa, H. Hellwagner, S. Sand, and S. Zhang, “Application-driven design of aerial communication networks,” *IEEE Communications Mag.*, vol. 52, pp. 129–137, May 2014.
- [J24] N. Marchenko, T. Andre, G. Brandner, W. Masood, and C. Bettstetter, “An experimental study of cooperative relaying protocols in industrial wireless sensor networks,” *IEEE Transactions on Industrial Informatics*, vol. 10, pp. 1806–1816, Aug. 2014.
- [J25] H. Adam, E. Yanmaz, and C. Bettstetter, “Medium access with adaptive relay selection in cooperative wireless networks,” *IEEE Transactions on Mobile Computing*, vol. 13, pp. 2042–2057, Sept. 2014.
- [J26] A. Gogolev, N. Marchenko, L. Marcenaro, and C. Bettstetter, “Distributed binary consensus in networks with disturbances,” *ACM Transactions on Autonomous and Adaptive Systems*, vol. 10, pp. 19:1–17, Aug. 2015.
- [J27] A. Crismani, S. Toumpis, U. Schilcher, G. Brandner, and C. Bettstetter, “Cooperative relaying under spatially and temporally correlated interference,” *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 4655–4669, Oct. 2015.
- [J28] U. Schilcher, S. Toumpis, M. Haenggi, A. Crismani, G. Brandner, and C. Bettstetter, “Interference functionals in Poisson networks,” *IEEE Transactions on Information Theory*, vol. 62, pp. 370–383, Jan. 2016.
- [J29] G. Brandner, U. Schilcher, and C. Bettstetter, “Firefly synchronization with phase rate correction and its experimental analysis in wireless systems,” *Computer Networks*, vol. 97, pp. 74–87, Mar. 2016.
- [J30] T. Andre and C. Bettstetter, “Collaboration in multi-robot exploration: To meet or not to meet?,” *Journal of Intelligent and Robotic Systems*, vol. 82, pp. 325–337, May 2016.

- [J31] U. Schilcher, G. Brandner, and C. Bettstetter, “Quantifying inhomogeneity of spatial point patterns,” *Computer Networks*, vol. 115, pp. 65–81, Mar. 2017.
- [J32] J. Klinglmayr, C. Bettstetter, M. Timme, and C. Kirst, “Convergence of self-organizing pulse coupled oscillator synchronization in dynamic networks,” *IEEE Transactions on Automatic Control*, vol. 62, pp. 1606–1619, Apr. 2017.
- [J33] W. Masood, J. F. Schmidt, G. Brandner, and C. Bettstetter, “DISTY: Dynamic stochastic time synchronization for wireless sensor networks,” *IEEE Transactions on Industrial Informatics*, vol. 13, pp. 1421–1429, May 2017.
- [J34] E. Yanmaz, S. Yahyanejad, B. Rinner, H. Hellwagner, and C. Bettstetter, “Drone networks: Communications, coordination, and sensing,” *Ad Hoc Networks*, vol. 68, pp. 1–15, Jan. 2018.
- [J35] P. Grippa, D. A. Behrens, F. Wall, and C. Bettstetter, “Drone delivery systems: Job assignment and dimensioning,” *Autonomous Robots*, vol. 43, pp. 261–273, Feb. 2019.
- [J36] U. Challita, W. Saad, and C. Bettstetter, “Interference management for cellular-connected UAVs: A deep reinforcement learning approach,” *IEEE Transactions on Wireless Communications*, vol. 18, pp. 2125–2140, Apr. 2019.
- [J37] P. Grippa, U. Schilcher, and C. Bettstetter, “On access control in cabin-based transport systems,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, pp. 2149–2156, June 2019.
- [J38] R. Muzaffar, E. Yanmaz, C. Raffelsberger, C. Bettstetter, and A. Cavallaro, “Live multicast video streaming from drones: An experimental study,” *Autonomous Robots*, vol. 44, pp. 75–91, Jan. 2020.
- [J39] J. F. Schmidt, D. Chernov, and C. Bettstetter, “Towards industrial ultra-wideband networks: Experiments for machine vibration monitoring,” *IEEE Access*, vol. 8, pp. 42576–42583, Mar. 2020.
- [J40] U. Schilcher, J. F. Schmidt, M. Atiq, and C. Bettstetter, “Autocorrelation and coherence time of interference in Poisson networks,” *IEEE Transactions on Mobile Computing*, vol. 19, pp. 1506–1518, July 2020.
- [J41] U. Schilcher, J. F. Schmidt, and C. Bettstetter, “On interference dynamics in Matérn networks,” *IEEE Transactions on Mobile Computing*, vol. 19, pp. 1677–1688, July 2020.

- [J42] S. Hayat, E. Yanmaz, C. Bettstetter, and T. X Brown, “Multi-objective drone path planning for search and rescue with quality-of-service requirements,” *Autonomous Robots*, vol. 44, pp. 1183–1198, Sept. 2020.
- [J43] A. Barciś and C. Bettstetter, “Sandsbots: Robots that sync and swarm,” *IEEE Access*, vol. 8, pp. 218752–218764, Dec. 2020.
- [J44] A. Vogell, U. Schilcher, and C. Bettstetter, “Deadlocks in the synchronization of pulse-coupled oscillators on star graphs,” *Physical Review E*, vol. 102, p. 062211, Dec. 2020.
- [J45] J. F. Schmidt, U. Schilcher, M. K. Atiq, and C. Bettstetter, “Interference prediction in wireless networks: Stochastic geometry meets recursive filtering,” *IEEE Transactions on Vehicular Technology*, vol. 70, pp. 2783–2793, Mar. 2021.
- [J46] J. F. Schmidt, D. Neuhold, C. Bettstetter, J. Klaue, and D. Schupke, “Wireless connectivity in airplanes: Challenges and the case for UWB,” *IEEE Access*, vol. 9, pp. 52913–52925, Apr. 2021.
- [J47] B. Rinner, C. Bettstetter, H. Hellwagner, and S. Weiss, “Multidrone systems: More than the sum of the parts,” *IEEE Computer*, vol. 54, pp. 34–43, May 2021.
- [J48] M. K. Atiq, U. Schilcher, X. Pengili, M. Haenggi, and C. Bettstetter, “Burstiness of interference pikes in wireless networks,” *IEEE Open Journal of Vehicular Technology*, vol. 4, pp. 293–309, Feb. 2023.
- [J49] J. F. Schmidt, U. Schilcher, A. Vogell, and C. Bettstetter, “Using randomization in self-organized synchronization for wireless networks,” *ACM Transactions on Autonomous and Adaptive Systems*, vol. 18, Sept. 2023.
- [J50] M. Sende, C. Raffelsberger, and C. Bettstetter, “Bridging the reality gap in drone swarm development through mixed reality,” *Autonomous Robots*, vol. 48, Sept. 2024.
- [J51] A. Vogell, U. Schilcher, J. F. Schmidt, and C. Bettstetter, “Chimera states in pulse-coupled oscillator systems,” *Physical Review E*, 2024. Accepted article.

— **Letters** —

- [L1] C. Bettstetter, “Topology properties of ad hoc networks with random waypoint mobility,” *ACM Mobile Computing and Communications Review*, vol. 7, pp. 50–52, July 2003.

- [L2] X. Pérez-Costa, C. Bettstetter, and H. Hartenstein, “Toward a mobility metric for comparable and reproducible results in ad hoc networks research,” *ACM Mobile Computing and Communications Review*, vol. 7, pp. 58–60, Oct. 2003.
- [L3] G. Brandner, U. Schilcher, T. Andre, and C. Bettstetter, “Packet delivery performance of simple cooperative relaying in real-world car-to-car communications,” *IEEE Wireless Communications Letters*, vol. 1, pp. 237–240, June 2012.
- [L4] J. F. Schmidt, U. Schilcher, and C. Bettstetter, “Exact bit error rate expressions for interference-limited Poisson networks,” *IET Electronics Letters*, vol. 52, pp. 1961–1963, Nov. 2016.
- [L5] S. Hayat, H. Hellwagner, R. Jung, C. Bettstetter, D. Emini, and D. Schnieders, “Edge computing in 5G for drone navigation: What to offload?,” *IEEE Robotics and Automation Letters*, vol. 6, pp. 2571–2578, Apr. 2021. Also presented at *IEEE Intern. Conf. on Robotics and Automation (ICRA)*, Xi’an, China, May/June 2021.

— Reports —

- [R1] C. Prehofer, J. Hillebrand, P. Hofmann, P. Mendes, Q. Wei, and C. Bettstetter, “Active IP networking: Towards self-organized ambient communication,” *NTT DoCoMo Technical Journal*, vol. 6, June 2004.

Books

- [B1] J. Eberspächer, H.-J. Vögel, and C. Bettstetter, *GSM — Global System for Mobile Communication. Vermittlung, Dienste und Protokolle in digitalen Mobilfunknetzen*. Teubner, 3rd ed., Jan. 2001.
- [B2] J. Eberspächer, H.-J. Vögel, and C. Bettstetter, *GSM — Switching, Services, and Protocols*. Wiley, 2nd ed., Mar. 2001.
- [B3] C. Bettstetter, *Mobility Modeling, Connectivity, and Adaptive Clustering in Ad Hoc Networks*. PhD thesis, Technische Universität München, Germany, Oct. 2003.
- [B4] J. Eberspächer, H.-J. Vögel, C. Bettstetter, and C. Hartmann, *GSM: Architecture, Protocols and Services*. Wiley, 3rd ed., Jan. 2009.
- [B5] C. Bettstetter and C. Gershenson, eds., *Self-Organizing Systems*. Lecture Notes in Computer Science, Springer, Feb. 2011.

Book Chapters

- [BC1] J. Hagenauer, J. F. Barros, C. Bettstetter, and S. Jauck, “Three years of experience with an international graduate program at TU München,” in *Educating the Engineer for the 21st Century* (D. Weichert, B. Rauhut, and R. Schmidt, eds.), Kluwer Academic Publishers, Nov. 2001.
- [BC2] C. Bettstetter and C. Hartmann, “GSM digital cellular communication system,” in *Encyclopedia of Telecommunications* (J. G. Proakis, ed.), Wiley, Dec. 2002.
- [BC3] C. Bettstetter and C. Hartmann, “General packet radio service (GPRS),” in *Encyclopedia of Telecommunications* (J. G. Proakis, ed.), Wiley, Dec. 2002.
- [BC4] A. Sarma, C. Bettstetter, and S. Dixit, “Self-organization in communication networks,” in *Technologies for the Wireless Future: Wireless World Research Forum (WWRF)* (R. Tafazolli, ed.), vol. 2, ch. 9, pp. 423–452, Wiley, June 2006.
- [BC5] C. Prehofer, C. Bettstetter, and J. Widmer, “Mobile communication networks,” in *Towards 4G Technologies: Services with Initiative* (H. Berndt, ed.), ch. 2, pp. 17–50, Wiley, Feb. 2008.

Conferences

- [C1] C. Weiß, C. Bettstetter, S. Riedel, and D. J. Costello, “Turbo decoding with tail-biting trellises,” in *Proc. URSI Intern. Symp. on Signals, Systems, and Electronics (ISSSE)*, (Pisa, Italy), Oct. 1998.
- [C2] C. Bettstetter, A. Riedl, and G. Geßler, “Interoperation of Mobile IPv6 and Protocol Independent Multicast Dense Mode,” in *Proc. Intern. Conf. on Parallel Processing (ICPP), Workshop on Wireless Networks and Mobile Computing*, (Toronto, Canada), Aug. 2000.
- [C3] C. Bettstetter, “Toward Internet-based car communications: On some system architecture and protocol aspects,” in *Proc. EUNICE Open European Summer School*, (Twente, The Netherlands), Sept. 2000.

- [C4] C. Bettstetter and C. Renner, “A comparison of service discovery protocols and implementation of the service location protocol,” in *Proc. EUNICE Open European Summer School*, (Twente, The Netherlands), Sept. 2000.
- [C5] C. Bettstetter and J. Xi, “Mobility modeling and analysis of adaptive clustering algorithms in ad hoc networks,” in *Proc. European Personal Mobile Communications Conf. (EPMCC)*, (Vienna, Austria), Feb. 2001.
- [C6] C. Bettstetter, “Smooth is better than sharp: A random mobility model for simulation of wireless networks,” in *Proc. ACM Intern. Workshop on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)*, (Rome, Italy), July 2001.
- [C7] C. Bettstetter and O. Krause, “On border effects in modeling and simulation of wireless ad hoc networks,” in *Proc. IEEE Intern. Conf. on Mobile and Wireless Communications Networks (MWCN)*, (Recife, Brazil), Aug. 2001.
- [C8] E. Jåsund, C. Bettstetter, and C. Schwingenschlögl, “A service browser for the service location protocol version 2 (SLPv2),” in *Proc. EUNICE Open European Summer School*, (Paris, France), Sept. 2001.
- [C9] M. Vettorello, C. Bettstetter, and C. Schwingenschlögl, “Some notes on security in the service location protocol version 2 (SLPv2),” in *Proc. European Conf. on Computer Supported Cooperative Work (ECSCW), Workshop on Ad Hoc Communications*, (Bonn, Germany), Sept. 2001.
- [C10] C. Bettstetter and R. Krausser, “Scenario-based stability analysis of the distributed mobility-adaptive clustering (DMAC) algorithm,” in *Proc. ACM Intern. Symp. on Mobile Ad Hoc Networking and Computing (MobiHoc)*, (Long Beach, USA), Oct. 2001.
- [C11] C. Bettstetter and S. König, “On the message and time complexity of a distributed mobility-adaptive clustering algorithm in wireless ad hoc networks,” in *Proc. European Wireless*, (Florence, Italy), Feb. 2002.
- [C12] C. Bettstetter and C. Wagner, “The spatial node distribution of the random waypoint mobility model,” in *Proc. German Workshop on Mobile Ad Hoc Networks (WMAN)*, (Ulm, Germany), Mar. 2002.
- [C13] J. Xi and C. Bettstetter, “Wireless multi-hop Internet access: Gateway discovery, routing, and addressing,” in *Proc. Intern. Conf. on Third Generation Wireless and Beyond (3Gwireless)*, (San Francisco, CA, USA), May 2002.

- [C14] C. Bettstetter, “On the minimum node degree and connectivity of a wireless multihop network,” in *Proc. ACM Intern. Symp. on Mobile Ad Hoc Networking and Computing (MobiHoc)*, (Lausanne, Switzerland), June 2002.
- [C15] C. Bettstetter and J. Zangl, “How to achieve a connected ad hoc network with homogeneous range assignment: An analytical study with consideration of border effects,” in *Proc. IEEE Intern. Conf. on Mobile and Wireless Communications Networks (MWCN)*, (Stockholm, Sweden), Sept. 2002.
- [C16] C. Bettstetter, “On the connectivity of wireless multihop networks with homogeneous and inhomogeneous range assignment,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Vancouver, Canada), Sept. 2002.
- [C17] C. Bettstetter, H. Hartenstein, and X. Pérez-Costa, “Stochastic properties of the random waypoint mobility model: Epoch length, direction distribution, and cell change rate,” in *Proc. ACM Intern. Workshop on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)*, (Atlanta, GA, USA), Sept. 2002.
- [C18] T. Kosch, C. Schwingenschlögl, and C. Bettstetter, “Situative IP-basierte Fahrerinformationssysteme: Szenarien, Routing und prototypische Realisierung,” in *Proc. VDE Conf. 'NetWorlds'*, (Dresden, Germany), Oct. 2002.
- [C19] C. Bettstetter and C. Moser, “Simulationsbasierte Konnektivitätsanalyse von gleich- und normalverteilten drahtlosen Sensornetzen,” in *Proc. ITG/GI Conf. on 'Kommunikation in Verteilten Systemen' (KiVS)*, (Leipzig, Germany), Feb. 2003.
- [C20] C. Bettstetter and B. Friedrich, “Time and message complexities of the generalized distributed mobility-adaptive clustering (GDMAC) algorithm in wireless multihop networks,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Jeju, Korea), Apr. 2003.
- [C21] C. Bettstetter and J. Eberspächer, “Hop distances in homogeneous ad hoc networks,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Jeju, Korea), Apr. 2003.
- [C22] C. Bettstetter and C. Hartmann, “Connectivity of wireless multihop networks in a shadow fading environment,” in *Proc. ACM Intern. Workshop on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)*, (San Diego, CA, USA), pp. 28–32, Sept. 2003.
- [C23] C. Bettstetter, “The cluster density of a distributed clustering algorithm in ad hoc networks,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Paris, France), June 2004.

- [C24] C. Bettstetter, “Failure-resilient ad hoc and sensor networks in a shadow fading environment,” in *Proc. IEEE/IFIP Intern. Conf. on Dependable Systems and Networks (DSN), Workshop on Dependability Issues in Wireless Ad Hoc Networks and Sensor Networks (DIWANS)*, (Florence, Italy), June 2004.
- [C25] E. Carlson, C. Bettstetter, H. Karl, C. Prehofer, and A. Wolisz, “Distributed maintenance of resource reservation paths in multihop 802.11 networks,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Los Angeles, CA, USA), Sept. 2004.
- [C26] P. Hofmann, C. Bettstetter, J. Wehren, and C. Prehofer, “Performance impact of mobility in an emulated IP-based multihop radio access network,” in *Proc. IEEE Intern. Conf. on Mobile and Wireless Communications Networks (MWCN)*, (Paris, France), Oct. 2004.
- [C27] E. Carlson, C. Bettstetter, C. Prehofer, and A. Wolisz, “A performance comparison of QoS approaches for ad hoc networks: 802.11e versus distributed resource allocation,” in *Proc. European Wireless*, (Nicosia, Cyprus), Apr. 2005.
- [C28] A. Joseph, S. Banerjee, C. Bettstetter, E.-K. Lua, M. Meo, P. Mähönen, M. Papadopouli, and M. van Steen, “Modeling and performance evaluation of P2P MANET,” in *Proc. Dagstuhl Seminar on Peer-to-Peer Mobile Ad Hoc Networks*, (Dagstuhl, Germany), Apr. 2005.
- [C29] C. Bettstetter, C. Hartmann, and C. Moser, “How does randomized beamforming improve the connectivity of ad hoc networks?,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Seoul, Korea), May 2005.
- [C30] R. Vilzmann and C. Bettstetter, “A survey on MAC protocols for ad hoc networks with directional antennas,” in *Proc. EUNICE Open European Summer School*, (Colmenarejo, Spain), July 2005.
- [C31] R. Vilzmann, C. Bettstetter, and C. Hartmann, “On the impact of beamforming on mutual interference in wireless mesh networks,” in *Proc. IEEE Workshop on Wireless Mesh Networks (WiMesh)*, (Santa Clara, CA, USA), Sept. 2005.
- [C32] R. Vilzmann, C. Bettstetter, D. Medina, and C. Hartmann, “Hop distances and flooding in wireless multihop networks with randomized beamforming,” in *Proc. ACM/IEEE Intern. Symp. on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)*, (Montreal, Canada), Oct. 2005.

- [C33] P. Hofmann, K. Kuladinithi, A. Timm-Giel, C. Görg, C. Bettstetter, F. Capman, and C. Toulsaly, “Are IEEE 802 wireless technologies suited for fire fighters?,” in *Proc. European Wireless*, (Athens, Greece), Apr. 2006.
- [C34] A. Tyrrell, G. Auer, and C. Bettstetter, “Synchronization inspired from nature for wireless meshed networks,” in *Proc. Intern. Conf. on Wireless Communications, Networking, and Mobile Computing*, (Wuhan, China), Sept. 2006.
- [C35] A. Tyrrell, G. Auer, and C. Bettstetter, “Fireflies as role models for synchronization in ad hoc networks,” in *Proc. Intern. Conf. on Bio-Inspired Models of Network, Information, and Computing Systems (BIONETICS)*, (Cavalese, Italy), Dec. 2006.
- [C36] C. Bettstetter, M. Gyarmati, and U. Schilcher, “An inhomogeneous node distribution and its stochastic properties,” in *Proc. ACM/IEEE Intern. Symp. on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)*, (Chania, Greece), pp. 400–404, Oct. 2007.
- [C37] U. Schilcher, M. Gyarmati, C. Bettstetter, Y. W. Chung, and Y. H. Kim, “Measuring inhomogeneity in spatial distributions,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Marina Bay, Singapore), May 2008. Best paper award.
- [C38] S. Crisóstomo, J. Barros, and C. Bettstetter, “Flooding the network: Multipoint relays versus network coding,” in *Proc. IEEE Intern. Conf. on Circuits and Systems for Communications (ICCSC)*, (Shanghai, China), May 2008.
- [C39] H. Adam, C. Bettstetter, and S. M. Senouci, “Adaptive relay selection in cooperative wireless networks,” in *Proc. IEEE Intern. Symp. on Personal, Indoor and Mobile Radio Communications (PIMRC)*, (Cannes, France), Sept. 2008.
- [C40] C. Bettstetter, G. Brandner, and R. Vilzmann, “On colliding first messages in slotted ALOHA,” in *Proc. IEEE Intern. Symp. on Personal, Indoor and Mobile Radio Communications (PIMRC)*, (Cannes, France), Sept. 2008. Invited paper.
- [C41] M. Quaritsch, E. Stojanovski, C. Bettstetter, G. Friedrich, H. Hellwagner, B. Rinner, H. Hofbaur, and M. Shah, “Collaborative microdrones: Applications and research challenges,” in *Proc. Intern. Conf. on Autonomic Computing and Communications Systems (Autonomics)*, (Turin, Italy), Sept. 2008. Invited paper.
- [C42] A. Tyrrell, G. Auer, and C. Bettstetter, “On the accuracy of firefly synchronization with delays,” in *Proc. Intern. Symp. on Applied Sciences in Biomedical and Communication Technologies (ISABEL)*, (Aalborg, Denmark), Oct. 2008. Best student paper award.

- [C43] S. Crisóstomo, J. Barros, and C. Bettstetter, “Network coding with shortcuts,” in *Proc. IEEE Intern. Conf. on Communication Systems (ICCS)*, (Guangzhou, China), Nov. 2008.
- [C44] A. Tyrrell, G. Auer, and C. Bettstetter, “A synchronization metric for meshed networks of pulse-coupled oscillators,” in *Proc. Intern. Conf. on Bio-Inspired Models of Network, Information, and Computing Systems (BIONETICS)*, (Hyogo, Japan), Nov. 2008.
- [C45] M. Gyarmati, U. Schilcher, G. Brandner, C. Bettstetter, Y. W. Chung, and Y. H. Kim, “Impact of random mobility on the inhomogeneity of spatial distributions,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (New Orleans, LA, USA), Nov. 2008.
- [C46] R. Holzer, H. de Meer, and C. Bettstetter, “On autonomy and emergence in self-organizing systems,” in *Proc. Intern. Workshop on Self-Organizing Systems (IWSOS)*, (Vienna, Austria), Dec. 2008. Invited paper.
- [C47] H. Adam, C. Bettstetter, and S. M. Senouci, “Multi-hop-aware cooperative relaying,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Barcelona, Spain), Apr. 2009. Best student paper award.
- [C48] G. Brandner, U. Schilcher, M. Gyarmati, and C. Bettstetter, “Non-colliding first messages in slotted ALOHA: Further insights toward a practical solution,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Barcelona, Spain), Apr. 2009.
- [C49] N. Marchenko, C. Bettstetter, and E. Yanmaz, “On radio resource allocation in proactive cooperative relaying,” in *Proc. IEEE Workshop on Cooperative Mobile Networks (CoCoNet)*, (Dresden, Germany), June 2009.
- [C50] S. Crisóstomo, U. Schilcher, C. Bettstetter, and J. Barros, “Analysis of probabilistic flooding: How do we choose the right coin?,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Dresden, Germany), June 2009.
- [C51] J. Klinglmayr, C. Bettstetter, and M. Timme, “Globally stable synchronization by inhibitory pulse coupling,” in *Proc. Intern. Symp. on Applied Sciences in Biomedical and Communication Technologies (ISABEL)*, (Bratislava, Slovak Republic), Nov. 2009. Invited paper.
- [C52] H. Adam, W. Elmenreich, C. Bettstetter, and S. M. Senouci, “CoRe-MAC: a MAC-protocol for cooperative relaying in wireless networks,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (Honolulu, Hawaii, USA), Nov. 2009.

- [C53] N. Marchenko, E. Yanmaz, H. Adam, and C. Bettstetter, “Selecting a spatially efficient cooperative relay,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (Honolulu, Hawaii, USA), Nov. 2009.
- [C54] W. Elmenreich, R. D’Souza, C. Bettstetter, and H. de Meer, “A survey of models and design methods for self-organizing networked systems,” in *Proc. Intern. Workshop on Self-Organizing Systems (IWSOS)*, (Zürich, Switzerland), Dec. 2009. Invited paper.
- [C55] G. Brandner, U. Schilcher, and C. Bettstetter, “Cooperative relaying in car-to-car communications: Initial results from an experimental study,” in *Proc. IEEE Intern. Symp. Communications, Control and Signal Processing (ISCCSP)*, (Limassol, Cyprus), Mar. 2010. Invited paper.
- [C56] H. Adam, E. Yanmaz, W. Elmenreich, and C. Bettstetter, “Contention-based neighborhood estimation,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Taipei, Taiwan), May 2010.
- [C57] E. Yanmaz and C. Bettstetter, “Area coverage with unmanned vehicles: A belief-based approach,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Taipei, Taiwan), May 2010.
- [C58] C. Bettstetter, J. Klinglmayr, and S. Lettner, “On the degree distribution of k -connected random networks,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Cape Town, South Africa), May 2010.
- [C59] A. Tyrrell, G. Auer, C. Bettstetter, and R. Naripella, “How does a faulty node disturb decentralized slot synchronization over wireless networks?,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Cape Town, South Africa), May 2010.
- [C60] N. Marchenko and C. Bettstetter, “Cooperative multicast with low-cost radios,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Ottawa, Canada), Sept. 2010.
- [C61] R. Leidenfrost, W. Elmenreich, and C. Bettstetter, “Fault-tolerant averaging for self-organizing synchronization in wireless ad hoc networks,” in *Proc. Intern. Symp. on Wireless Communication Systems (ISWCS)*, (York, UK), Sept. 2010.
- [C62] J. Klinglmayr and C. Bettstetter, “Synchronization of inhibitory pulse-coupled oscillators in delayed random and line networks,” in *Proc. Intern. Symp. on Applied Sciences in Biomedical and Communication Technologies (ISABEL)*, (Rome, Italy), Nov. 2010. Invited paper.

- [C63] E. Yanmaz, C. Costanzo, C. Bettstetter, and W. Elmenreich, “A discrete stochastic process for coverage analysis of autonomous UAV networks,” in *Proc. Intern. Workshop on Wireless Networking for Unmanned Aerial Vehicles*, (Miami, FL, USA), Dec. 2010.
- [C64] N. Marchenko, W. Elmenreich, and C. Bettstetter, “Incremental cooperative relaying in time-correlated rayleigh fading channels,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (Miami, FL, USA), Dec. 2010.
- [C65] U. Schilcher, G. Brandner, and C. Bettstetter, “Diversity schemes in interference-limited wireless networks with low-cost radios,” in *Proc. Wireless Communications Networking Conf. (WCNC)*, (Cancun, Mexico), Mar. 2011.
- [C66] E. Yanmaz, R. Kuschnig, M. Quaritsch, C. Bettstetter, and B. Rinner, “On path planning strategies for networked unmanned aerial vehicles,” in *Proc. IEEE INFOCOM Workshop on Machine-to-Machine Communications and Networking*, (Shanghai, China), Apr. 2011.
- [C67] N. Marchenko and C. Bettstetter, “Throughput and energy efficiency of cooperative diversity with relay selection,” in *Proc. European Wireless*, (Vienna, Austria), Apr. 2011.
- [C68] N. Marchenko and C. Bettstetter, “Impact of relay selection overhead in cooperative diversity protocols,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (San Francisco, CA, USA), Sept. 2011.
- [C69] E. Yanmaz, R. Kuschnig, and C. Bettstetter, “Channel measurements over 802.11a-based UAV-to-ground links,” in *Proc. Intern. Workshop on Wireless Networking for Unmanned Autonomous Vehicles*, (Houston, TX, USA), Dec. 2011.
- [C70] A. Gogolev and C. Bettstetter, “Robustness of self-organizing consensus algorithms: Initial results from a simulation-based study,” in *Proc. Intern. Workshop on Self-Organizing Systems (IWSOS)*, (Delft, The Netherlands), Mar. 2012.
- [C71] T. Andre, G. Brandner, N. Marchenko, and C. Bettstetter, “Measurement-based analysis of cooperative relaying in an industrial wireless sensor network,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (Anaheim, CA, USA), Dec. 2012.
- [C72] U. Schilcher, C. Bettstetter, and G. Brandner, “Temporal correlation of interference: Cases with correlated traffic,” in *Proc. ITG Conf. Systems, Communications and Coding (SCC)*, (Munich, Germany), Jan. 2013.

- [C73] E. Yanmaz, R. Kuschnig, and C. Bettstetter, “Achieving air-ground communications in 802.11 networks with three-dimensional aerial mobility,” in *Proc. IEEE INFOCOM*, (Turin, Italy), Apr. 2013.
- [C74] T. Andre, N. Marchenko, G. Brandner, W. Masood, and C. Bettstetter, “Measurement-based analysis of adaptive relay selection in industrial wireless sensor networks,” in *Proc. Intern. Workshop on Wireless Network Measurements (WinMee)*, (Tsukuba, Japan), May 2013.
- [C75] T. Andre and C. Bettstetter, “Assessing the value of coordination in mobile robot exploration using a discrete-time markov process,” in *Proc. IEEE/RSJ Intern. Conf. on Intelligent Robots and Systems (IROS)*, (Tokyo, Japan), Nov. 2013.
- [C76] U. Schilcher, S. Toumpis, A. Crismani, G. Brandner, and C. Bettstetter, “How does interference dynamics influence packet delivery in cooperative relaying?,” in *Proc. ACM/IEEE Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Barcelona, Spain), Nov. 2013.
- [C77] E. Yanmaz, S. Hayat, J. Scherer, and C. Bettstetter, “Experimental performance analysis of two-hop aerial 802.11 networks,” in *Proc. IEEE Wireless Communications and Networking Conf. (WCNC)*, (Istanbul, Turkey), Apr. 2014.
- [C78] M. Rappaport, E. Yanmaz, and C. Bettstetter, “Neighbor cardinality estimation with low-power transceivers: Implementation and experimental results,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Seoul, Korea), May 2014.
- [C79] A. Crismani, U. Schilcher, S. Toumpis, G. Brandner, and C. Bettstetter, “Packet travel times in wireless relay chains under spatially and temporally dependent interference,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Sydney, Australia), June 2014.
- [C80] W. Masood, J. Klinglmayr, and C. Bettstetter, “Experimental evaluation of pulse-coupled oscillator synchronization in 802.15.4 networks,” in *Proc. Workshops of ACM Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Montreal, Canada), Sept. 2014.
- [C81] T. Andre, D. Neuhold, and C. Bettstetter, “Coordinated multi-robot exploration: Out of the box packages for ROS,” in *Proc. Intern. Workshop on Wireless Networking and Control for Unmanned Autonomous Vehicles (Wi-UAV)*, (Austin, TX, USA), Dec. 2014.
- [C82] G. Brandner, J. Klinglmayr, D. Egarter, U. Schilcher, and C. Bettstetter, “Precision of pulse-coupled oscillator synchronization on FPGA-based radios,” in *Proc. Intern. ITG*

Conf. on Systems, Communications, and Coding (SCC), (Hamburg, Germany), Feb. 2015.

- [C83] J. Scherer, S. Yahyanejad, S. Hayat, E. Yanmaz, T. Andre, A. Khan, V. Vukadinovic, C. Bettstetter, H. Hellwagner, and B. Rinner, “An autonomous multi-UAV system for search and rescue,” in *Proc. Workshop on Micro Aerial Vehicle Networks, Systems, and Applications for Civilian Use (DroNet)*, (Florence, Italy), May 2015.
- [C84] S. Hayat, E. Yanmaz, and C. Bettstetter, “Experimental analysis of multipoint-to-point UAV communications with 802.11n and 802.11ac,” in *Proc. IEEE Intern. Symp. on Personal, Indoor and Mobile Radio Communications (PIMRC)*, (Hong Kong), Aug. 2015.
- [C85] J. F. Schmidt, M. K. Atiq, U. Schilcher, and C. Bettstetter, “Underlay device-to-device communications in LTE-A: Uplink or downlink?,” in *Proc. IEEE Intern. Symp. on Personal, Indoor and Mobile Radio Communications (PIMRC)*, (Hong Kong), Aug. 2015.
- [C86] D. Neuhold, J. F. Schmidt, C. Bettstetter, J. Klaue, and D. Schupke, “Experiments with UWB aircraft sensor networks,” in *Proc. IEEE INFOCOM Workshops*, (San Francisco, CA, USA), Apr. 2016.
- [C87] J. F. Schmidt, M. K. Atiq, U. Schilcher, and C. Bettstetter, “Encouraging device-to-device communications to improve energy efficiency in cellular systems,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Nanjing, China), May 2016.
- [C88] E. Yanmaz, M. Quaritsch, S. Yahyanejad, B. Rinner, H. Hellwagner, and C. Bettstetter, “Communication and coordination for drone networks,” in *Proc. EAI Intern. Conf. on Ad Hoc Networks (ADHOCNETS)*, (Ottawa, Canada), Sept. 2016. Invited paper.
- [C89] R. Muzaffar, E. Yanmaz, C. Bettstetter, and A. Cavallaro, “Application-layer rate-adaptive multicast video streaming over 802.11 for mobile devices,” in *Proc. ACM Multimedia Conf.*, (Amsterdam, The Netherlands), pp. 506–510, Oct. 2016.
- [C90] S. Hayat, E. Yanmaz, T. X Brown, and C. Bettstetter, “Multi-objective UAV path planning for search and rescue,” in *Proc. IEEE Intern. Conf. on Robotics and Automation (ICRA)*, (Marina Bay, Singapore), pp. 5569–5574, May 2017.
- [C91] P. Grippa, D. A. Behrens, C. Bettstetter, and F. Wall, “Job selection in a network of autonomous UAVs for delivery of goods,” in *Proc. Robotics: Science and Systems (RSS)*, (Cambridge, MA, USA), July 2017.

- [C92] M. Rappaport and C. Bettstetter, “Coordinated recharging of mobile robots during exploration,” in *Proc. IEEE/RSJ Intern. Conf. on Intelligent Robots and Systems (IROS)*, (Vancouver, Canada), pp. 6809–6816, Sept. 2017.
- [C93] M. K. Atiq, U. Schilcher, J. F. Schmidt, and C. Bettstetter, “Semi-blind interference prediction in wireless networks,” in *Proc. ACM Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Miami Beach, FL, USA), pp. 19–23, Nov. 2017.
- [C94] D. Neuhold, J. F. Schmidt, J. Klaue, D. Schupke, and C. Bettstetter, “Experimental study of packet loss in a UWB sensor network for aircraft,” in *Proc. ACM Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Miami Beach, FL, USA), pp. 137–142, Nov. 2017. Best paper award.
- [C95] J. F. Schmidt, D. Neuhold, J. Klaue, D. Schupke, and C. Bettstetter, “Experimental study of UWB connectivity in industrial environments,” in *Proc. European Wireless*, (Catania, Italy), May 2018.
- [C96] U. Challita, W. Saad, and C. Bettstetter, “Deep reinforcement learning for interference-aware path planning of cellular-connected UAVs,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Kansas City, MO, USA), May 2018.
- [C97] P. Grippa, E. Yanmaz, P. Ladinig, and C. Bettstetter, “Guarded by Gamora: How access control balances out waiting times in transport systems,” in *Proc. IEEE Intern. Conf. on Intelligent Transportation Systems (ITSC)*, (Maui, Hawaii, USA), Nov. 2018.
- [C98] K. O’Keeffe and C. Bettstetter, “A review of swarmalators and their potential in bio-inspired computing,” in *Proc. SPIE Micro- and Nanotechnology Sensors, Systems, and Applications XI*, (Baltimore, MD, USA), p. 109822E, Apr. 2019. Invited paper.
- [C99] S. Borkotoky, C. Bettstetter, U. Schilcher, and C. Raffelsberger, “Allocation of repetition redundancy in LoRa,” in *Proc. European Wireless*, (Aarhus, Denmark), May 2019.
- [C100] J. F. Schmidt, D. Chernov, M. Pauritsch, and C. Bettstetter, “Study of a self-powered UWB sensor network for industrial applications,” in *Proc. European Wireless*, (Aarhus, Denmark), May 2019.
- [C101] D. Neuhold, J. F. Schmidt, C. Bettstetter, J. Sebald, and J. Klaue, “UWB connectivity inside a space launch vehicle,” in *Proc. European Wireless*, (Aarhus, Denmark), May 2019.

- [C102] A. Barciś and C. Bettstetter, “Beyond sync: Distributed temporal coordination and its implementation in a multi-robot system,” in *Proc. IEEE Intern. Conf. on Self-Adaptive and Self-Organizing Systems (SASO)*, (Umeå, Sweden), pp. 88–96, June 2019. Best paper award.
- [C103] S. Hayat, C. Bettstetter, A. Fakhreddine, R. Muzaffar, and D. Emini, “An experimental evaluation of LTE-A throughput for drones,” in *Proc. ACM Workshop on Micro Aerial Vehicle Networks, Systems, and Applications (DroNet)*, (Seoul, Korea), pp. 3–8, June 2019.
- [C104] A. Fakhreddine, C. Bettstetter, S. Hayat, R. Muzaffar, and D. Emini, “Handover challenges for cellular-connected drones,” in *Proc. ACM Workshop on Micro Aerial Vehicle Networks, Systems, and Applications (DroNet)*, (Seoul, Korea), pp. 9–14, June 2019.
- [C105] A. Barciś, M. Barciś, and C. Bettstetter, “Robots that sync and swarm: A proof of concept in ROS 2,” in *Proc. Intern. Symp. on Multi-Robot and Multi-Agent Systems (MRS)*, (New Brunswick, NJ, USA), pp. 98–104, Aug. 2019.
- [C106] C. Raffelsberger, R. Muzaffar, and C. Bettstetter, “A performance evaluation tool for drone communications in 4G cellular networks,” in *Proc. Intern. Symp. on Wireless Communication Systems (ISWCS)*, (Oulo, Finland), Aug. 2019. Invited paper.
- [C107] M. K. Atiq, U. Schilcher, and C. Bettstetter, “On interference pikes in Poisson networks,” in *Proc. European Signal Processing Conf. (EUSIPCO)*, (A Coruña, Spain), Sept. 2019.
- [C108] D. Neuhold, C. Bettstetter, and A. F. Molisch, “HiPR: High-precision UWB ranging for sensor networks,” in *Proc. ACM Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Miami Beach, FL, USA), pp. 103–107, Nov. 2019.
- [C109] S. Borkotoky, U. Schilcher, and C. Bettstetter, “Cooperative relaying in LoRa sensor networks,” in *Proc. IEEE Global Communications Conf. (GLOBECOM)*, (Waikoloa, HI, USA), Dec. 2019.
- [C110] U. Schilcher, S. Borkotoky, J. F. Schmidt, and C. Bettstetter, “Outage duration in Poisson networks and its application to erasure codes,” in *Proc. IEEE Intern. Conf. on Communications (ICC)*, (Dublin, Ireland), June 2020.
- [C111] R. Muzaffar, C. Raffelsberger, A. Fakhreddine, J. López Luque, D. Emini, and C. Bettstetter, “First experiments with a 5G-connected drone,” in *Proc. ACM Workshop on Micro*

Aerial Vehicle Networks, Systems, and Applications (DroNet), (Toronto, Canada), June 2020.

- [C112] J. Breitegger, C. Raffelsberger, S. Borkotoky, I. Rogler, and C. Bettstetter, “Long-term LoRa experiments in a chemical plant,” in *Proc. IEEE Intern. Conf. on Industrial Technology (ICIT)*, (Online conference), Mar. 2021.
- [C113] A. Stornig, A. Fakhreddine, H. Hellwagner, P. Popovski, and C. Bettstetter, “Video quality and latency for UAV teleoperation over LTE: A study with ns3,” in *Proc. IEEE Vehicular Technology Conf. (VTC)*, (Online conference), Apr. 2021.
- [C114] J. F. Schmidt, U. Schilcher, A. Vogell, and C. Bettstetter, “Stochastic switching of power levels can accelerate self-organized synchronization in wireless networks with interference,” in *Proc. IEEE Intern. Conf. on Autonomic Computing and Self-Organizing Systems (ACSOS)*, (Online conference), pp. 81–89, Sept. 2021.
- [C115] U. Schilcher, J. F. Schmidt, A. Vogell, and C. Bettstetter, “Swarmalators with stochastic coupling and memory,” in *Proc. IEEE Intern. Conf. on Autonomic Computing and Self-Organizing Systems (ACSOS)*, (Online conference), Sept. 2021. Best paper award.
- [C116] A. Vogell, U. Schilcher, J. F. Schmidt, and C. Bettstetter, “Of diamonds, rings, and bracelets: Local values of the response parameter can increase the synchronization probability in pulse-coupled oscillators,” in *Proc. IEEE Intern. Conf. on Autonomic Computing and Self-Organizing Systems (ACSOS)*, (Online conference), Sept. 2022.
- [C117] D. Neuhold, A. Fakhreddine, and C. Bettstetter, “HiPR+: A protocol for centimeter 3D localization based on UWB,” in *Proc. ACM Intern. Conf. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, (Montreal, Canada), Oct. 2022.
- [C118] A. Fakhreddine, C. Raffelsberger, M. Sende, and C. Bettstetter, “Experiments on drone-to-drone communication with Wi-Fi, LTE-A, and 5G,” in *Proc. IEEE GLOBECOM Workshop on Cellular UAV and Satellite Communications*, (Rio de Janeiro, Brazil), Dec. 2022.
- [C119] E. Caballero, A. Fakhreddine, and C. Bettstetter, “Interference by drones to 5G ground users: A simulation study,” in *Proc. ACM Workshop on Micro Aerial Vehicle Networks, Systems, and Applications (DroNet)*, (Helsinki, Finland), pp. 45–50, June 2023.
- [C120] U. Schilcher, C. W. Rauter, and C. Bettstetter, “Radii of emergent patterns in swarmalator systems,” in *Proc. IEEE Intern. Conf. on Autonomic Computing and Self-Organizing Systems (ACSOS)*, (Toronto, Canada), pp. 151–156, Sept. 2023.

- [C121] F. Posch, A. Fakhreddine, E. Caballero, and C. Bettstetter, “A classifier for aerial devices in 5G networks,” in *Proc. IEEE GLOBECOM Workshop on Cellular UAV and Satellite Communications*, (Kuala Lumpur, Malaysia), pp. 775–780, Dec. 2023.
- [C122] U. Schilcher, S. Toumpis, S. S. Borkotoky, J. F. Schmidt, and C. Bettstetter, “Calculating the traffic density in LPWANs with finite retransmissions,” in *Proc. IEEE Vehicular Technology Conf.*, (Singapore), June 2024.