Bibliography

[1] A. Kliks and N. Dimitriou and A. Zalonis and O. Holland. WiFi traffic offloading for energy saving. In *ICT 2013*, pages 1–5, May 2013.

[2] A. Abdallah, M. M. Mansour, and A. Chehab. A distance-based power control scheme for D2D communications using stochastic geometry. In *Proc. IEEE Vehicular Technology Conference*, Sep. 2017.

[3] E. Ben Abdelkrim, M. A. Salahuddin, H. Elbiaze, and R. Glitho. A hybrid regression model for video popularity-based cache replacement in content delivery networks. In *IEEE Global Communications Conference*, pages 1–7, Dec 2016.

[4] R. M. Abuteir, A. Fladenmuller, and O. Fourmaur. Sdn based architecture to improve video streaming in home networks. In *IEEE 30th International Conference on Advanced Information Networking and Applications*, pages 220–226, March 2016.

[5] K. S. Ali, H. ElSawy, and M. Alouini. Modeling cellular networks with full-duplex D2D communication: A stochastic geometry approach. *IEEE Trans. Commun.*, 64(10):4409–4424, Oct 2016.

[6] R. I. Ansari, C. Chrysostomou, S. A. Hassan, M. Guizani, S. Mumtaz, J. Rodriguez, and J. J. P. C. Rodrigues. 5g d2d networks: Techniques, challenges, and future prospects. *IEEE Systems Journal*, 12(4):3970–3984, Dec 2018.

[7] A. Asadi, Q. Wang, and V. Mancuso. A survey on device-to-device communication in cellular networks. *Communications Surveys and Tutorials,IEEE*, 16(4):1801–1819, Fourthquarter. 2014.

[8] R. Atat, L. Liu, N. Mastronarde, and Y. Yi. Energy harvesting-based d2d-assisted machine-type communications. *IEEE Transactions on Communications*, 65(3):1289–1302, March 2017.

[9] F. Baccelli and B. Blaszczyszyn. *Stochastic Geometry and Wireless Networks, Vol.1. Delft, the Netherlands.* NOW, 2010.

[10] A. Checko, H. L. Christiansen, Y. Yan, L. Scolari, G. Kardaras, M. S. Berger, and L. Dittmann. Cloud RAN for mobile networks;a technology overview. *Communications Surveys and Tutorials,IEEE*, 17(1):405–426, Firstquarter. 2015.

[11] H. Chen, L. Liu, H. S. Dhillon, and Y. Yi. QoS-aware D2D cellular networks with spatial spectrum sensing: A stochastic geometry view. *IEEE Trans. Commun.*, 67(5):3651–3664, May 2019.

[12] D. Suh and H. Ko and S. Pack. Efficiency Analysis of WiFi Offloading Techniques. *IEEE Trans. Veh. Technol.*, 65(5):3813–3817, May 2016.

[13] A. Douik, H. Dahrouj, T. Y. Al-Naffouri, and M. Alouini. Coordinated scheduling and power control in cloud-radio access networks. *IEEE Transactions on Wireless Communications*, 15(4):2523–2536, April 2016.

[14] H. ElSawy and E. Hossain. On stochastic geometry modeling of cellular uplink transmission with truncated channel inversion power control. *IEEE Trans. Wireless Commun.*, 13(8):4454–4469, Aug 2014.

[15] H. ElSawy, E. Hossain, and M. Alouini. Analytical modeling of mode selection and power control for underlay D2D communication in cellular networks. *IEEE Trans. Commun.*, 62(11):4147–4161, Nov 2014.

[16] N. Giatsoglou, K. Ntontin, E. Kartsakli, A. Antonopoulos, and C. Verikoukis. Distributed wireless communication system: A new architecture for future public wireless access. *IEEE Commun. Mag.*, 41(3):108–113, Mar. 2003.

[17] N. Giatsoglou, K. Ntontin, E. Kartsakli, A. Antonopoulos, and C. Verikoukis. Wireless network cloud: Architecture and system requirements. *IBM Journal of Research and Development*, 54(1):4:1–4:12, Jan. 2010.

[18] N. Giatsoglou, K. Ntontin, E. Kartsakli, A. Antonopoulos, and C. Verikoukis. D2d-aware device caching in mmwave-cellular networks. *IEEE J. Sel. Areas Commun.*, 35(9):2025–2037, Sep. 2017.

[19] M. Haenggi. *Stochastic Geometry for Wireless Networks*. Cambridge University Press, 2013.

[20] F. Jameel, Z. Hamid, F. Jabeen, S. Zeadally, and M. A. Javed. A survey of device-to-device communications: Research issues and challenges. *IEEE Communications Surveys Tutorials*, 20(3):2133–2168, thirdquarter 2018.

[21] K. Lee and J. Lee and Y. Yi and I. Rhee and S. Chong. Mobile Data Offloading: How Much Can WiFi Deliver? *IEEE/ACM Transactions on Networking*, 21(2):536–550, April 2013.

[22] K. Katsalis, N. Nikaein, E. Schiller, R. Favraud, and T. I. Braun. 5g architectural design patterns. In *2016 IEEE International Conference on Communications Workshops*, pages 32–37, May 2016.

[23] F. R. Kschischang, B. J. Frey, and H. . Loeliger. Factor graphs and the sum-product algorithm. *IEEE Transactions on Information Theory*, 47(2):498–519, Feb 2001.

[24] P. Kumar, C. M. Shamrao, and M. Mukherjee. Sum-rate maximization with joint power allocation and mode selection in D2D-enabled 5G cellular networks. In *IEEE International Conference on Communications Workshops*, pages 1–6, May 2019.

[25] X. Lin, J. G. Andrews, and A. Ghosh. Spectrum sharing for device-to-device communication in cellular networks. 13(12):6727–6740, Dec 2014.

[26] J. Liu, B. Bai, J. Zhang, and K. B. Letaief. Content caching at the wireless network edge: A distributed algorithm via belief propagation. In *2016 IEEE International Conference on Communications (ICC)*, pages 1–6, May 2016.

[27] M. A. Abana and M. Peng and Z. Zhao and L. A. Olawoyin. Coverage and Rate Analysis in Heterogeneous Cloud Radio Access Networks With Device-to-Device Communication. *IEEE Access*, 4:2357–2370, May 2016.

[28] H. Nakayama, S. Ata, and I. Oka. Caching algorithm for content-oriented networks using prediction of popularity of contents. In *IEEE International Symposium on Integrated Network Management*, pages 1171–1176, May 2015.

[29] M. Peng, Y. Li, Z. Zhao, and C. Wang. System architecture and key technologies for 5G heterogeneous cloud radio access networks. *Network,IEEE*, 29(2):6–14, March. 2015.

[30] M. Peng, S. Yan, K. Zhang, and C. Wang. Fog-computing-based radio access networks: issues and challenges. *Network,IEEE*, 30(4):46–53, July. 2016.

[31] C. Richier, R. Elazouzi, T. Jimenez, E. Altman, and G. Linares. Predicting popularity dynamics of online contents using data filtering methods. In *54th Annual Allerton Conference on Communication, Control, and Computing*, pages 31–38, Sep 2016.

[32] P. Sun, K. G. Shin, H. Zhang, and L. He. Transmit power control for D2D-underlaid cellular networks based on statistical features. *IEEE Trans. Veh. Technol.*, 66(5):4110–4119, May. 2017.

[33] K. Thar, Thant Zin Oo, Chuan Pham, S. Ullah, Doo Ho Lee, and C. S. Hong. Efficient forwarding and popularity based caching for content centric network. In *International Conference on Information Networking*, pages 330–335, Jan 2015.

[34] A. F. R. Trajano and M. P. Fernandez. Contentsdn: A content-based transparent proxy architecture in software-defined networking. In *IEEE 30th International Conference on Advanced Information Networking and Applications*, pages 532–539, March 2016.

[35] Antonio Virdis, Giovanni Nardini, and Giovanni Stea. Modeling unicast device-to-device communications with simulte. In *2016 1st International Workshop on Link and System Level Simulations*, pages 1–6, July. 2016.

[36] W. Hu and G. Cao. Quality-Aware Traffic Offloading in Wireless Networks. *IEEE Trans. Mobile Comput.*, 16(11):3182–3195, Nov 2017.

[37] L. Wei, Z. Zheng, J. Corander, and G. Taricco. On the outage capacity of orthogonal space-time block codes over multi-cluster scattering MIMO channels. *IEEE Trans. Commun.*, 63(5):1700–1711, May. 2015.

[38] Dapeng Wu and R. Negi. Effective capacity: A wireless link model for support of quality of service. *IEEE Trans. Commun.*, 2(4):630–643, July. 2003.

[39] Z. Xiaoqiang, Z. Min, and W. Muqing. An in-network caching scheme based on betweenness and content popularity prediction in content-centric networking. In *IEEE 27th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications*, pages 1–6, Sep 2016.

[40] Y. Yang, Y. Zhang, L. Dai, J. Li, S. Mumtaz, and J. Rodriguez. Transmission capacity analysis of relay-assisted device-to-device overlay/underlay communication. 13(1):380–389, Feb. 2017.

[41] H. Yao, D. Zeng, H. Huang, S. Guo, A. Barnawi, and I. Stojmenovic. Opportunistic offloading of deadline-constrained bulk cellular traffic in vehicular dtns. *IEEE Transactions on Computers*, 64(12):3515–3527, Dec 2015.

[42] M. Chen W. Saad C. Yin and M. Debbah. Echo state networks for proactive caching and content prediction in cloud radio access networks. In *Proc. IEEE Global Telecommunications Conference*, pages 1–6, Dec. 2016.

[43] Z. Zhao, M. Peng, Z. Ding, W. Wang, and H. V. Poor. Cluster content caching: An energy-efficient approach to improve quality of service in cloud radio access networks. *IEEE J. Sel. Areas Commun.*, 34(5):1207–1221, May. 2016.