Submissions under Review


Refereed Publications

2019


[J133] Hossein Vaezy, Mohammad Javad Omidi, and Halim Yanikomeroglu, “Energy efficient precoder design in multi-user MIMO systems with imperfect channel state information”, IEEE Wireless Communications Letters (acceptance: 08 November 2018). [arXiv] [ResearchGate] [Xplore]


keeps people in the loop: A path towards a new global utility”, *IEEE Communications Magazine*, vol. 57, no. 1, pp. 114-121, January 2019. [arXiv] [ResearchGate] [Xplore]


2018


[J114] Rozita Rashtchi, Ramy H. Gohary, and Halim Yanikomeroglu, “Conjoint routing and resource allocation in OFDMA-based D2D wireless networks”, *IEEE Access*, vol. 6, pp. 18,868-18,882, 2018. [ResearchGate] [Xplore]

[J113] Mohamed Alzenad, Amr El-Keyi, and Halim Yanikomeroglu, “3D placement of an unmanned aerial vehicle base station for maximum coverage of users with different QoS requirements”, *IEEE Wireless Communications Letters*, vol. 7, no. 1, pp. 38-41, February 2018. [arXiv] [ResearchGate] [Xplore]


Conference on Communications Workshops (ICCW) 2018, 20–24 May 2018, Kansas City, MO, USA. [arXiv] [ResearchGate] [Xplore]


[C227] Taimour Aldalgamouni, Mehmet Cagri Ilter, Osamah S. Badarneh, and Halim Yanikomeroglu, “Performance analysis of Fisher-Snedecor F composite fading channels”, IEEE Middle East and North Africa Communications Conference (MENACOMM) 2018, 18–20 April 2018, Jounieh, Lebanon. [ResearchGate] [Xplore]


[C225] Rozhina Ghanavi, Elham Kalantari, Maryam Sabbathian, Halim Yanikomeroglu, and Abbas Yongacoglu, “Efficient 3D aerial base station placement considering users mobility by reinforcement learning”, IEEE Wireless Communications and Networking Conference (WCNC) 2018, 15–18 April 2018, Barcelona, Spain. [arXiv] [ResearchGate] [Xplore]

[C224] Fatima Ezzahra Airod, Houda Chafnaji, and Halim Yanikomeroglu, “Performance analysis of low latency multiple full-duplex selective decode and forward relays”, IEEE Wireless Communications and Networking Conference (WCNC) 2018, 15–18 April 2018, Barcelona, Spain. [arXiv] [ResearchGate] [Xplore]

2017


Yaser M. M. Fouad, Ramy H. Gohary, and Halim Yanikomeroglu, “Number-theoretic sequence design for uncoordinated autonomous multiple access in relay-assisted machine-type communications”, *IEEE Transactions on Vehicular Technology*, vol. 66, no. 10, pp. 9018-9034, October 2017. [Xplore]

Jing Guo, Salman Durrani, Xiangyun Zhou, and Halim Yanikomeroglu, “Massive machine type communication with data aggregation and resource scheduling”, *IEEE Transactions on Communications*, vol. 65, no. 9, pp. 4012-4026, September 2017. [arXiv] [Xplore]


Karim G. Seddik, Ramy H. Gohary, Mohammad T. Hussein, Mohammad Shaqfeh, Hussein Alnuweiri, and Halim Yanikomeroglu, “Multi-resolution multicasting over the Grassmann and Stiefel manifolds”, *IEEE Transactions on Wireless Communications*, vol. 16, no. 8, pp. 5296-5310, August 2017. [Xplore]

Mohamed Alzenad, Amr El-Keyi, Faraj Lagum, and Halim Yanikomeroglu, “3-D placement of an unmanned aerial vehicle base station (UAV-BS) for energy-efficient maximal coverage”, *IEEE Wireless Communications Letters*, vol. 6, no. 3, pp. 434-437, August 2017. [arXiv] [Xplore]


Quoc-Nam Le-The, Tamer Beitelmal, Faraj Lagum, Sebastian S. Szyszkwicz, and Halim Yanikomeroglu, “Cell switch-off algorithms for spatially irregular base station deployments”, *IEEE Wireless Communications Letters*, vol. 6, no. 3, pp. 354-357, June 2017. [Xplore]


[J92] Faraj Lagum, Quoc-Nam Le-The, Tamer Beitelmal, Sebastian S. Szyszkowicz, and Halim Yanikomeroglu, “Cell switch-off for networks deployed with variable spatial regularity”, *IEEE Wireless Communications Letters*, vol. 6, no. 2, pp. 234-237, April 2017. [Xplore]


[C222] Elham Kalantari, Irem Bor-Yaliniz, Abbas Yongacoglu, and Halim Yanikomeroglu, “User association and bandwidth allocation for terrestrial and aerial base stations with backhaul
considerations”, Invited Paper, IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC) 2017, 08–13 October 2017, Montreal, Quebec, Canada. [arXiv] [ResearchGate]


[C212] Hossein Khoshnevis, Ian Marsland, and Halim Yanikomeroglu, “Throughput-based


2016


[J85] Irem Bor-Yaliniz and Halim Yanikomeroglu, “The new frontier in RAN heterogeneity: Multi-tier drone-cells”, *IEEE Communications Magazine*, vol. 54, no. 11, pp. 48-55, November 2016. [arXiv] [Xplore]


[J79] Faraj Lagum, Sebastian S. Szyszkowicz, and Halim Yanikomeroglu, “CoV-based metrics to quantify the regularity of hard-core point processes for modeling the locations of base stations”, *IEEE Wireless Communications Letters*, vol. 5, no. 3, pp. 276-279, June 2016. [Xplore]


[J75] Rozita Rashtchi, Ramy H. Gohary, and Halim Yanikomeroglu, “Generalized cross-layer designs for generic half-duplex multicarrier wireless networks with frequency reuse”, *IEEE Transactions on Wireless Communications*, vol. 15, no. 1, pp. 458-471, January 2016. [arXiv] [Xplore]


[C206] Ziwen Zhao, Sebastian Szyszkowicz, Tamer Beitalmal, and Halim Yanikomeroglu, “Spatial clustering in slotted ALOHA two-hop random access for machine type communication”, *IEEE Global Communications Conference (Globecom) 2016*, 4–8 December 2016, Washington, DC, USA. [PresentationSlides]


[C204] Faraj Lagum, Sebastian Szyszkowicz, and Halim Yanikomeroglu, “Quantifying the regularity of perturbed triangular lattices using CoV-based metrics for modeling the locations of Base Stations in HetNets”, *IEEE Vehicular Technology Conference (VTC2016-Fall)*, 18–21 September 2016, Montreal, QC, Canada. [PresentationSlides]


[C202] Elham Kalantari, Halim Yanikomeroglu, and Abbas Yongacoglu, “On the number and 3D placement of drone base stations in wireless cellular networks”, *IEEE Vehicular Technology Conference (VTC2016-Fall)*, 18–21 September 2016, Montreal, QC, Canada. [arXiv] [ResearchGate] [PresentationSlides]


2015


[J64] Shengrong Bu, F. Richard Yu, and Halim Yanikomeroglu, “Interference-aware energy-
efficent resource allocation for heterogeneous wireless networks with imperfect dynamics information”, *IEEE Transactions on Vehicular Technology*, vol. 64, no. 3, pp. 1036-1050, March 2015. [pdf]


[C187] Baris Yuksekkaya, Hazer Inaltekin, Cenk Toker, and Halim Yanikomeroglu, “Near-
optimum power control for two-tier SIMO uplink under power and interference constraints”, 16th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC) 2015, 28 June – 1 July 2015, Stockholm, Sweden. [pdf] [PresentationSlides]


2014


Meisam Mirahsan, Rainer Schoenen, and Halim Yanikomeroglu, “Statistical modeling of spatial traffic distribution with adjustable heterogeneity and BS-correlation in wireless cellular networks”, IEEE Global Communications Conference (Globecom) 2014, 8–12 December 2014, Austin, TX, USA. [pdf] [PresentationSlides]

Davut Incebacak, Bulent Tavli, and Halim Yanikomeroglu, “Trade-offs in sum-rate maximization and fairness in relay-enhanced OFDMA-based cellular networks”, IEEE Global Communications Conference (Globecom) 2014, 8–12 December 2014, Austin, TX, USA. [pdf] [PresentationSlides]

Rainer Schoenen and Halim Yanikomeroglu, “Resource pooling in network virtualization and heterogeneous scenarios using stochastic Petri nets”, IEEE Global Communications Conference (Globecom) 2014, 8–12 December 2014, Austin, TX, USA. [pdf]


Daniel Calabuig, Ramy Gohary, and Halim Yanikomeroglu, “Optimization of a class of non-convex objectives on the Gaussian MIMO multiple access channel: Algorithm development and convergence analysis”, 15th IEEE International Workshop on Signal Processing Advances in


Tamer Beitalmal and Halim Yanikomeroglu, “A set cover based algorithm for cell switch-off with different cell sorting criteria”, IEEE International Conference on Communications (ICC) 2014 Workshop on Small Cell and 5G Networks, 10–14 June 2014, Sydney, Australia. [pdf] [PresentationSlides]


2013


2012


Zakaria El-Moutaouakkil, Tarik Ait-Idir, Samir Saoudi, Halim Yanikomeroglu, and Mounir Ghogho, “Turbo receiver design for MIMO relay ARQ transmissions”, IEEE Global


Ramy Gohary and Halim Yanikomeroglu, "Grassmannian decode-and-forward achieves the ergodic high SNR capacity of the non-coherent MIMO relay channel within a constant gap", IEEE Information Theory Workshop (ITW 2012), 3–7 September 2012, Lausanne, Switzerland. [pdf]


Ramy Gohary and Halim Yanikomeroglu, “Joint optimization of the transmit covariance


2011


[J42] Sebastian S. Szyszczowicz, Furkan Alaca, Halim Yanikomeroglu, and John Thompson, “Aggregate interference distribution from large wireless networks with correlated shadowing: An
analytical-numerical-simulation approach”, *IEEE Transactions on Vehicular Technology*, vol. 60, no. 6, pp. 2752-2764, July 2011. [pdf]


2010


[C120] Alireza Sharifian, Petar Djukic, Halim Yanikomeroglu, and Jietao Zhang, “Max-min fair resource allocation for multiuser amplify-and-forward relay networks”, IEEE Vehicular Technology Conference (VTC2010-Fall), 6 – 9 September 2010, Ottawa, ON, Canada. [pdf] [PresentationSlides]


[C118] Mohammad G. Khoshkholgh, Keivan Navaie, and Halim Yanikomeroglu, “Novel approaches to determine the optimal operating point of spectrum sensing in overlay spectrum sharing”, IEEE Vehicular Technology Conference (VTC2010-Fall), 6 – 9 September 2010, Ottawa, ON, Canada.
[C117] Soumitra Dixit, Shalini Periyalwar, and Halim Yanikomeroglu, “A competitive and dynamic pricing model for secondary users in infrastructure based wireless networks”, IEEE Vehicular Technology Conference (VTC2010-Fall), 6 – 9 September 2010, Ottawa, ON, Canada. [pdf] [PresentationSlides]


[C105] Muhammad Aljuaid and Halim Yanikomeroglu, “Investigating the validity of a Gaussian approximation for the distribution of the aggregate interference power in large wireless networks”, 25th Biennial Symposium on Communications (QBSC 2010), 12 – 14 May 2010, Queen’s University, Kingston, ON, Canada. [pdf]

[C104] Akram Bin Sediq, Petar Djukic, Halim Yanikomeroglu, and Jietao Zhang, “Near-optimal non-uniform constellation rearrangement for cooperative relaying”, 25th Biennial Symposium on Communications (QBSC 2010), 12 – 14 May 2010, Queen’s University, Kingston, ON, Canada.


2009


[C99] Sebastian Szyszkowicz and Halim Yanikomeroglu, “Fitting the modified power-lognormal to the sum of independent lognormals distribution”, IEEE Globecom 2009, 30 November – 4 December 2009, Honolulu, HI, USA. [pdf]


[C95] Soumitra Dixit, Shalini Periyalwar, and Halim Yanikomeroglu, “A distributed framework
with a novel pricing model for enabling dynamic spectrum access for secondary users”, IEEE Vehicular Technology Conference (VTC2009-Fall), 20 – 23 September 2009, Anchorage, AK, USA. [pdf] [PresentationSlides]


[C91] Saad Al-Ahmadi and Halim Yanikomeroglu, “On the role of the input power constraint in the beamforming optimality range in TIMO channels”, Canadian Workshop on Information Theory (CWIT), 13 – 15 May 2009, Ottawa, ON, Canada. [pdf]


2008


2007


2006


2005


Keivan Navaie and Halim Yanikomeroglu, "Multi-user diversity in multi-hop cellular networks", Canadian Workshop on Information Theory (CWIT'05), 5-8 June 2005, Montreal, Canada. [pdf]

Omer Mubarek, Halim Yanikomeroglu, and Shalini Periyalwar, "Dynamic frequency


2004


[C37] Adrian Florea and Halim Yanikomeroglu, "On the efficiency of using multiple hops in
relay based networks", World Wireless Research Forum (WWRF12) meeting no. 12, 3-4 November 2004, Toronto, Canada.


[C35] Halim Yanikomeroglu, "Cellular multihop communications: infrastructure-based relay network architecture for 4G wireless systems", the 22nd Queen's Biennial Symposium on Communications (QBSC'04), 1-3 June 2004, Queen's University, Kingston, Ontario, Canada; invited paper. [doc]


2003


[C27] Van Sreng, Halim Yanikomeroglu, and David D. Falconer, "Relayer selection strategies in
cellular networks with peer-to-peer relaying", IEEE Vehicular Technology Conference Fall 2003 (VTC'F03), 4-9 October 2003, Orlando, Florida, USA. [pdf]


[C24] Shoaev Hares, Halim Yanikomeroglu, and Bassam Hashem, "Multi-hop relaying with diversity in peer-to-peer networks", World Wireless Research Forum (WWRF9) meeting no. 9, 1-2 July 2003, Zurich, Switzerland. [doc]


2002


2001


2000


1999


[C09] Halim Yanikomeroglu, "On the reverse link capacity of CDMA macrodiversity systems",

1998


1997


1996


1993
[C01] Halim Yanikomeroglu and Elvino S. Sousa, "CDMA distributed antenna system for indoor wireless communications", in Proc. 2nd International Conference on Universal Personal Communications (ICUPC'93), pp. 990-994, October 1993, Ottawa, ON, Canada. [pdf]

**Book Chapters**


**Selected Non-Refereed Publications**

"WWRF WG4 - White Paper: Relay-Based Deployment Concepts for Wireless and Mobile Broadband Cellular Radio", prepared by contributions from thirteen researchers including H. Yanikomeroglu, Joint Workshop IEEE - WWRF, October 2003, New York, USA.

"Relay-Based Deployment Concepts White Paper", prepared by nine researchers including H. Yanikomeroglu, World Wireless Research Forum (WWRF) meeting no. 9, July 2003, Zurich, Switzerland.
