Curriculum Vitae

Michal Yemini

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Current Position

Associate research scholar at Princeton University.
Host: Prof. Andrea Goldsmith.

Education

2017 PhD in Electrical Engineering, Bar-Ilan University,
(joint MSc-PhD program).
Thesis: Cognitive radio networks
Advisors: Prof. Amir Leshem and Prof. Anelia Somekh-Baruch.

2013 MSc in Electrical Engineering, Bar-Ilan University,
(joint MSc-PhD program).
Cum laude (highest distinction in the joint MSc-PhD track).

2010 BSc in Computer Engineering, Technion – Israel Institute of Technology.
Awarded by the Faculty of Electrical Engineering.

Awards and Honors

2017 The Eric and Wendy Schmidt Postdoctoral Award for Women in Mathematical and Computing Sciences

2017 Council of Higher Education's Postdoctoral Fellowships Program for Outstanding Women in Science.

2017 Bar-Ilan University's Postdoctoral Fellowship for Women.

2016 Student travel grant for the International Symposium on Information Theory-ISIT 2016 (non competitive).

2015 Travel award for the Graduate Summer School: Games and Contracts for Cyber-Physical Security, UCLA, USA (IPAM GSS2015).

2014 Rector's list for excellence.

2013-2016 BIU President's Fellowship.

Employment

2.2021-present Associate research scholar at Princeton University.

9.2020-1.2021 Visiting postdoctoral researcher at Princeton University.

11.2017-1.2021 Postdoctoral researcher at the Wireless Systems Lab (WSL), Stanford University.

2012-2017 Recitation instructor and teaching assistant in the following courses:

2014-2017 Information Theory.

2013-2016 Statistical Signal Processing 2 - Detection and Estimation Theory.

2014-2017 Random Processes (homework grader).

2013 Signals and Systems.

2012-2013 Microcontroller Laboratory.

2012 Microprocessors and assembly language.

2014-2015 Researcher in a research group led by Prof. Amir Leshem and Prof. Ephraim Zehavi. This group studied methods for resource allocation in future wireless networks, as part of the NEPTUNE consortium.

Technical Reviewer

- IEEE Transactions on Robotics
- IEEE Transactions on Wireless Communications
- Statistics and Probability Letters
- IEEE International Symposium on Information Theory (ISIT) 2021
- IEEE Global Communications Conference (GLOBCOM), 2020, 2021
- IEEE International Conference on Communication (ICC), 2020
- IEEE Global Conference on Signal and Information Processing (GlobalSIP) 2015

Additional Activities

2018 North American School of Information Theory 2018 (NASIT'18).

2015 Mostly Markov Mixing - Summer School 2015 - Summer Workshop for Graduate Students, Technion, Israel (Faculty of Mathematics, Technion).

2015 Game Theory Summer School - Graduate Summer School: Games and Contracts for Cyber-Physical Security (IPAM GSS2015), UCLA, USA.

Publications

Journal Papers

Submitted Papers

1. M. Yemini, S. Gil and A. J. Goldsmith, "Cloud-Cluster Architecture for Detection in Intermittently Connected Sensor Networks" - submitted to the IEEE Transactions on Wireless Communications in October 2021.

Published/ In Press Papers

2. M. Yemini, A. Nedić, A. J. Goldsmith and S. Gil, "Characterizing trust and resilience in distributed consensus for cyberphysical systems" - accepted to the IEEE Transactions on Robotics Special Issue on Resilience in Networked Robotic Systems, May 2021.

3. M. Yemini and A. J. Goldsmith, "Virtual cell clustering with optimal resource allocation to maximize capacity", IEEE Transactions on Wireless Communications, vol. 20, no. 8, pp. 5099-5114, August 2021.

4. M. Yemini, A. Somekh-Baruch and A. Leshem, "The restless hidden Markov bandit with linear rewards", IEEE Transactions on Signal Processing, vol. 69, no. 21, pp. 1108-1123, January, 2021.

5. M. Yemini, A. Somekh-Baruch, R. Cohen and A. Leshem, "The Simultaneous Connectivity of Cognitive Networks", IEEE Transactions on Information Theory, vol. 65, no. 11, pp. 6911-6930, November 2019.

6. A. Leshem and M. Yemini, "Phase noise compensation for OFDM systems", IEEE Transactions on Signal Processing, vol. 65, no. 21, pp. 5675-5686, November 1, 2017.

7. M. Yemini, A. Zappone, E. Jorswieck and A. Leshem , "Energy efficient bidirectional massive MIMO relay beamforming", IEEE Signal Processing Letters, vol. 24, no. 7, pp. 1010-1014, July 2017.

8. M. Yemini, A. Somekh-Baruch and A. Leshem, "On the multiple access channel with asynchronous cognition", IEEE Transactions on Information Theory, vol. 62, no. 10, pp. 5643-5663, October 2016.

9. M. Yemini, A. Somekh-Baruch and A. Leshem, "Asynchronous transmission over single-user state-dependent channels ", IEEE Transactions on Information Theory, vol. 61, no. 11, pp. 5854-5867, November 2015.

Conference Papers

Submitted Conference Papers

1. T. Gafni, M. Yemini and K. Cohen, "Restless multi-armed bandits under exogenous global Markov process" - submitted to the 2022 IEEE International Conference on Acoustics, Speech and Signal Processing.

Conference Papers with Proceedings

2. M. Yemini, E. Erkip and A. J. Goldsmith "Interference deduction in virtual cell optimization", accepted to the 2021 Asilomar Conference on Signals, Systems, and Computers.

3. M. Yemini, S. Gil and A. J. Goldsmith "Exploiting local and cloud sensor fusion in intermittently connected sensor networks," Proceedings of the 2020 IEEE Global Communications Conference (GLOBECOM), Taipei, Taiwan, 2020.

4. M. Yemini, A. Leshem and A. Somekh-Baruch "Restless hidden Markov bandit with linear rewards," Proceedings of the 59th IEEE Conference on Decision and Control (CDC), Jeju, Korea (South), 2020.

5. M. Yemini and A. J. Goldsmith, "Virtual cell clustering with optimal resource allocation to maximize cellular system capacity," Proceedings of the 2019 IEEE Global Communications Conference (GLOBECOM), Waikoloa, HI, USA, 2019.

6. M. Yemini and A. J. Goldsmith, "Optimal resource allocation for cellular networks with virtual cell joint decoding," Proceedings of the 2019 IEEE International Symposium on Information Theory (ISIT), Paris, France, 2019, pp. 2519-2523.

7. M. Yemini, A. Somekh-Baruch, R. Cohen and A. Leshem, "Simultaneous connectivity in heterogeneous cognitive radio networks", Proceedings of the IEEE International Symposium on Information Theory (ISIT'16), Barcelona, Spain, July 2016, pp. 1262-1266.

8. M. Yemini, A. Somekh-Baruch and A. Leshem, "On the asynchronous cognitive MAC", Proceedings of the IEEE International Symposium on Information Theory (ISIT'14), Honolulu, HI, USA, June/July 2014, pp. 2929–2933.

9. M. Yemini, A. Somekh-Baruch and A. Leshem, "On channels with asynchronous state information at the transmitter", Proceedings of the IEEE 27th Convention of Electrical & Electronics Engineers in Israel (IEEEI), 2012.

Conference Presentations without Proceedings

1. M. Yemini, A. Zappone, E. Jorswieck and A. Leshem, "Energy efficient bidirectional massive MIMO relay beamforming", 2016 International Conference on the Science of Electrical Engineering (ICSEE 2016), Eilat, Israel.
2. M. Yemini, A. Somekh-Baruch and A. Leshem "Asynchronous state information," 2016 Information Theory and Applications (ITA) Workshop.