Curriculum Vitae

Michal Yemini

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Current Position	As Fa Vi De	ssistant professor, aculty of Engineering, Bar-Ilan University, Israel. isiting Research Collaborator, epartment of Electrical and Computer Engineering, Princeton University, USA.
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	BIU Rector's list for excellence.
2013-2016		BIU President's Fellowship.
Previous Employment		
2.2021-10.2022		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.

Service

Technical Reviewer: Journals

- Automatica
- IEEE Transactions on Robotics
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Signal Processing
- IEEE Transactions on Mobile Computing
- Statistics and Probability Letters

Technical Reviewer: Conferences and Workshops

- American Control Conference (ACC), 2023
- International Workshop on Federated Learning: Recent Advances and New Challenges (in Conjunction with NeurIPS), 2022
- Innovations in Theoretical Computer Science (ITCS), 2022
- IEEE International Symposium on Information Theory (ISIT), 2021-2023
- 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 Service

- Invited session co-organizer: Robust Distributed Optimization, Estimation, and Coordination in Multi-Agent Systems - CDC 2022
- Session chair: Communication and Coding (I and II) CISS 2022
- A co-founder and committee member of the Princeton AI Club 2022

Publications

Journal Papers

Preprints and Submitted Papers

- 1. <u>M. Yemini</u>, Nedić, A. J. Goldsmith and S. Gil, "Resilient distributed optimization for multi-agent cyberphysical systems" - submitted. Preprint: arXiv:2212.02459.
- N. Weinberger, <u>M. Yemini</u>, "Multi-armed bandits with self-information rewards" - submitted. Preprint: arXiv:2209.02211.

3. <u>M. Yemini</u>, R. Saha, E. Ozfatura, D. Gündüz and A. J. Goldsmith, "Robust federated learning with connectivity failures: a semi-decentralized framework with collaborative relaying" - submitted. Preprint: arXiv:2202.11850.

Published/ In Press Papers

- <u>M. Yemini</u>, S. Gil and A. J. Goldsmith, "Cloud-cluster architecture for detection in intermittently connected sensor networks," IEEE Transactions on Wireless Communications, vol. 22, no. 2, pp. 903-919, February 2023.
- T. Gafni, <u>M. Yemini</u> and K. Cohen, "Learning in restless bandits under exogenous global Markov process," IEEE Transactions on Signal Processing, vol. 70, pp. 5679-5693, 2022.
- <u>M. Yemini</u>, A. Nedić, A. J. Goldsmith and S. Gil, "Characterizing trust and resilience in distributed consensus for cyberphysical systems," IEEE Transactions on Robotics, vol. 38, no. 1, pp. 71-91, February 2022.
- 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.
- 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.
- 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.
- A. Leshem and <u>M. Yemini</u>, "Phase noise compensation for OFDM systems," IEEE Transactions on Signal Processing, vol. 65, no. 21, pp. 5675-5686, November 2017.
- 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.
- 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.
- <u>M. Yemini</u>, 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

 R. Saha, M. Seif, <u>M. Yemini</u>, A. J. Goldsmith, and H. V. Poor, "Collaborative Mean Estimation over Intermittently Connected Networks with Peer-To-Peer Privacy" - submitted.

Conference Papers with Proceedings

 M. Cavorsi, O. E. Akgün, <u>M. Yemini</u>, A. J. Goldsmith and S. Gil, "Exploiting trust for resilient hypothesis testing with malicious robots" - accepted to the IEEE Conference on Robotics and Automation (ICRA), 2023.

- <u>M. Yemini</u>, A. Nedić, S. Gil, and A. J. Goldsmith, "Resilience to malicious activity in distributed optimization for cyberphysical Systems", IEEE Conference on Decision and Control, December (CDC), 2022.
- M. Yemini, R. Saha, E. Ozfatura, D. Gündüz and A. J. Goldsmith, "Semicentralized over-the-air federated learning with intermittent client connections," Proceedings of the IEEE International Symposium on Information Theory (ISIT), 2022.
- 4. N. Weinberger, <u>M. Yemini</u>, "Upper Confidence Interval Strategies for Multi-Armed Bandits with Entropy Rewards," Proceedings of the IEEE International Symposium on Information Theory (ISIT), 2022.
- T. Gafni, <u>M. Yemini</u> and K. Cohen, "Restless multi-armed bandits under exogenous global Markov process," Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing, 2022.
- M. Yemini, E. Erkip and A. J. Goldsmith "Interference reduction in virtual cell optimization," Proceedings of the IEEE Asilomar Conference on Signals, Systems, and Computers, October-November, 2021.
- 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.
- 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.
- <u>M. Yemini</u> 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.
- <u>M. Yemini</u> 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.
- 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.
- <u>M. Yemini</u>, 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.
- 13. <u>M. Yemini</u>, 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 and Workshop Presentations without Proceedings

- R. Saha, <u>M. Yemini</u>, E. Ozfatura, D. Gündüz and A. J. Goldsmith, "ColRel: Collaborative Relaying for Federated Learning over Intermittently Connected Networks", Workshop on Federated Learning: Recent Advances and New Challenges (in Conjunction with NeurIPS 2022).
- 2. <u>M. Yemini</u>, A. Nedić, A. J. Goldsmith and S. Gil, "Characterizing trust and resilience in distributed consensus for cyberphysical systems", IEEE Conference

on Robotics and Automation (ICRA), May 2022.

- 3. <u>M. Yemini</u>, 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.
- 4. <u>M. Yemini</u>, A. Somekh-Baruch and A. Leshem "Asynchronous state information," 2016 Information Theory and Applications (ITA) Workshop.

Invited Talks 1. Resilience to Malicious Activity in Distributed Optimization for Cyberphysical Systems, Air Force Center of Excellence, Rhodes Information Initiative at Duke, Duke University, February 2023.

- 2. Reliability and trust in distributed information systems, Faculty of Engineering, Bar-Ilan University, February 2022.
- 3. Reliability and trust in distributed information systems, Department of Electrical and Computer Engineering, Ben-Gurion University, February 2022.
- 4. Trust and Resilience in Distributed Consensus Cyberphysical Systems, Air Force Center of Excellence, Rhodes Information Initiative at Duke, Duke University, October 2021.
- 5. Cloud-Cluster Architecture for Detection in Intermittently Connected Sensor Networks, Information Processing and Communications Lab, Imperial College London, April 2021.
- Trust, Resilience and Simultaneous Connectivity in Wireless Distributed Networks, seminar on Information Theory and Communication, ECE, Technion, February, 2021.
- "Fog" Optimization via Virtual Cells in Wireless Network Resource Allocation, XCOM Labs, March 2019.
- 8. Simultaneous percolation with two disk types, Probability seminar, Department of Mathematics, Bar Ilan University, May 2016.

Additional Activities

- 2022 A member of the Princeton AI Club.
- 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.