

Masaki Ogura
Curriculum Vitae
Wednesday 18th March, 2020

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AREAS OF EXPERTISE

Control theory, network science, optimization, stochastic processes, biological physics

EDUCATION

Aug 2014	Ph.D. in Mathematics, <i>Texas Tech University</i>
Mar 2009	M.Sc. in Informatics, <i>Kyoto University</i>
Mar 2007	B.Eng., <i>Kyoto University</i>

PROFESSIONAL APPOINTMENTS

Nov 2019 –	<i>Associate Professor</i> Department of Bioinformatic Engineering, Graduate School of Information Science and Technology, Osaka University, Japan
Apr 2018 – Oct 2019	<i>Assistant Professor</i> Graduate School of Science and Technology, Division of Information Science Nara Institute of Science and Technology, Japan
Mar 2017 – Mar 2018	<i>Assistant Professor</i> Graduate School of Information Science Nara Institute of Science and Technology, Japan
Nov 2014 – Feb 2017	<i>Postdoctoral Researcher</i> Department of Electrical and Systems Engineering University of Pennsylvania

SHORT TERM VISITS

2018, 2019	Department of Mechanical Engineering, University of Hong Kong
2013	ICTEAM Institute, Université catholique de Louvain, Belgium

Feb 2019	Runner-up of the 2019 Best Paper Award, <i>IEEE Transactions on Network Science and Engineering</i>
Apr 2014	Summer Dissertation/Thesis Research Award, Texas Tech University
Jul 2013	Cash Family Endowed Fellowship, Texas Tech University
Jun 2012	Best Paper Award, The Society of Instrument and Control Engineers

Book Chapters

- ## Refereed Journal Articles

- 2

- [23] M. Ogura and C. F. Martin, “Stability analysis of positive semi-Markovian jump linear systems with state resets,” *SIAM Journal on Control and Optimization*, vol. 52, pp. 1809–1831, 2014.
- [24] M. Ogura and C. F. Martin, “Generalized joint spectral radius and stability of switching systems,” *Linear Algebra and its Applications*, vol. 439, no. 8, pp. 2222–2239, 2013.
- [25] M. Ogura and Y. Yamamoto, “Dissipativity of pseudorotational behaviors,” *IEEE Transactions on Automatic Control*, vol. 58, no. 4, pp. 823–833, 2013.
- [26] M. Nagahara, M. Ogura, and Y. Yamamoto, “ H^∞ design of periodically nonuniform interpolation and decimation for non-band-limited signals,” *SICE Journal of Control, Measurement, and System Integration*, vol. 4, no. 5, pp. 341–348, 2011. **(2012 SICE Best Paper Award)**

Refereed Conference Proceedings

- [1] Y. Abe, M. Ogura, H. Tsuji, A. Miura, and S. Adachi, “Resource and network management for satellite communications systems: a chance-constrained approach,” in *IFAC World Congress 2020* (accepted), 2020.
- [2] T. Kimura and M. Ogura, “Distributed collaborative 3D-deployment of UAV base stations for on-demand coverage,” in *IEEE INFOCOM 2020* (accepted), 2020. (acceptance rate

Invited and Hourly Talks

- [1] “ \mathbb{R}^n -valued piecewise linear systems,” *2019 19th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2020.
- [2] “ \mathbb{R}^n -valued piecewise linear systems,” *2020 20th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2020.
- [3] “Optimization of positive linear systems via geometric programming,” *Shenzhen University*, 2019.
- [4] “Optimization of positive linear systems via geometric programming,” *Guandong University of Technology*, 2019.
- [5] “ \mathbb{R}^n -valued piecewise linear systems,” *2019 19th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2019.
- [6] “Synthesis of positive linear systems by geometric programming,” *University of Hong Kong*, 2019.
- [7] “ \mathbb{R}^n -valued piecewise linear systems,” *2019 19th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2019.
- [8] “ \mathbb{R}^n -valued piecewise linear systems,” *2019 19th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2019.
- [9] “ \mathbb{R}^n -valued piecewise linear systems,” *2019 19th IEEE International Conference on Systems, Man, and Cybernetics (ISMCS)*, 2018.
- [10] “Networked epidemic spreading: modeling, analysis, and control,” *National Insitutite of Informatics*, 2018.

- [11] “éĜēēAāžžçLĦāAřāAāČŇiijšiiđ āAđāAĦāAŇāČLāČŠçĝŚāēāZāČŇ,”
çŤšēĝŚāÿČřnNäÿāēāqāĜžāLāŌLæě, 2018.
- [12] “Network epidemiology and control theory,” *University of Hong Kong*, 2018.
- [13] “āČĚāČšāČĦāČĦāČŇāČāČČāČLāČřāČijāČřāAōæŤřçŘĚāČčāČĜāČĦāČšāČř,”
çňñ62āŽđāČûāČžāČĚāČčāĽāāčqæČĚāāśāēāijŽčāŤřĦčŽžèqlēñŽæijŤāijŽ, 2018.
- [14] “āAŸāČČāČšāAšāČšāAģāAčāAĦāAūēdĜéŽšāČāČČāČLāČřāČijāČř,”
çŤšēĝŚāÿČřnNäÿāēāqāĜžāLāŌLæě, 2017.
- [15] “How can we “control” spreading processes over complex networks?”
çňñ4āŽđāŤřçŘĚāČčāČĜāČĦāČšāČřčāŤřĦūāijŽ, 2017.
- [16] “āijĦāŠāAōēĝčæđŘāAĦāĽāāčāijŽçčžçŌĜāčōāĽæŮžçĦŇāijŘāAŇāČĦāČŇāČčāČŮāČāČijāČA,”
ERATOæššāŌšæđŮāČŮāČāČŷāČģāČřāČĽēđĜéŽšāČāČČāČLāČřāČijāČřāČžāĦřāŽšāČřāČřāČŤāČžāČšāČĽāČ
2017.
- [17] “Analysis and control of spreading processes over complex networks,” *Washington State University*, 2017.
- [18] “Analysis and control of spreading processes over complex networks,” *Tokyo University of Agriculture and Technology*, 2016.
- [19] “Dynamical systems over time-varying networks,” *Workshop on Recent Advances in Systems and Control*, Kyoto University, 2015.
- [20] “Dynamical systems over time-varying networks,” *Tokyo Institute of Technology*, 2015.
- [21] “Stability analysis of switched linear systems with non-traditional switching signals,” in *GRASP special seminar*, University of Pennsylvania, 2014.
- [22] “Mean stability of switched linear systems,” *Université Catholique de Louvain*, 2013.

TEACHING ACTIVITIES

Nara Institute of Science and Technology

- Machine Learning and Intelligent Control (Spring 2019)
- Advanced Intelligent System Control (Spring 2017, 2018)

University of Pennsylvania

Co-lecturer:

- Convex Optimization in Systems and Control (Fall 2015)

Texas Tech University

Graduate Part-Time Instructor:

- Calculus II (Summer 2014, Spring 2014, Spring 2013)
- Calculus I (Summer 2013, Fall 2012)
- Trigonometry (Fall 2011)
- College Algebra (Fall 2013, Spring 2012)

Teaching Assistant:

- Advanced Calculus (Summer 2012)
- Linear Algebra (Summer 2012)
- Higher Mathematics for Engineers and Scientists I (Summer 2011)

Kyoto School of Computer Science

Lecturer:

- Control Engineering (Fall 2009, Fall 2008)
- Electrical Circuits (Spring 2008)
- Data Structures (Spring 2008)
- Numerical Analysis (Spring 2010, Spring 2009)

Kyoto University

Teaching Assistant:

- Modern Control Theory (Fall 2009, Fall 2008)

PROFESSIONAL SERVICE

- 2020– **Program Committee member:** International Conference on Complex Networks and their Applications
- Jan 2020– **Associate Editor:** Journal of The Franklin Institute
- Local Arrangements Vice Chair:** SICE Annual Conference 2018
- Associate Editor:** The 5th IFAC Workshop on Distributed Estimation and Control in Networked Systems (2015)
- Journal reviewer:** Annual Reviews in Control; Automatica; Applied Mathematics and Computation; Asian Journal of Control; Computer Communications; European Journal of Control European Physical Journal B; Foundations of Computational Mathematics; IEEE Control Systems Letters; IEEE Intelligent Systems; IEEE Transactions on Automatic Control; IEEE Transactions on Circuits and Systems; IEEE Transactions on Control of Network Systems; IEEE Transactions on Fuzzy Systems; IEEE Transactions on Signal Processing; IEEE Transactions on Systems, Man and Cybernetics: Systems; IEEE Transactions on Network Science and Engineering; IEEE Transactions on Neural Networks and Learning Systems; IET Control Theory & Applications; International Journal of Robust and Nonlinear Control; Neurocomputing; Nonlinear Analysis: Hybrid Systems; Physica A; Physics Letters A; SIAM Journal on Control and Optimization; Stochastics and Dynamics; Systems and Control Letters; Research in Engineering Design

Masaki Ogura, March 2020