

Masaki Ogura
Curriculum Vitae
Thursday 1st December, 2022

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Graduate School of Information Science and Technology
Osaka University
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AREAS OF EXPERTISE

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

EDUCATION

Ph.D. in Mathematics, *Texas Tech University*. 2014
M.Sc. in Informatics, *Kyoto University*. 2009
B.Eng., *Kyoto University*. 2007

PROFESSIONAL APPOINTMENTS

Associate Professor, Department of Bioinformatic Engineering, Graduate School of Information Science and Technology, Osaka University, Japan. Nov 2019–present
Visiting Associate Professor, Division of Information Science, Graduate School of Science and Technology, Nara Institute of Science and Technology, Japan. Apr 2020–Mar 2021
Assistant Professor, Graduate School of Information Science, Nara Institute of Science and Technology, Japan. Mar 2017–Oct 2019
Postdoctoral Researcher, Department of Electrical and Systems Engineering, University of Pennsylvania, Oct 2014–Feb 2017

SHORT TERM VISITS

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

SELECTED AWARDS AND HONORS

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

PUBLICATIONS

Book Chapters

- [1] V. M. Preciado, M. Zargham, C. Nowzari, S. Han, M. Ogura, A. Jadbabaie, and G. J. Pappas, “Bio-inspired Framework for Allocation of Protection Resources in Cyber-Physical Networks,” in *Principles of Cyber-Physical Systems*. Cambridge University Press, 2020, pp. 293–322.
- [2] M. Ogura and V. M. Preciado, “Optimal Containment of Epidemics in Temporal and Adaptive Networks,” in *Temporal Networks Epidemiology*. Springer, 2017, pp. 241–266.
- [3] M. Ogura and C. F. Martin, “Linear Switching Systems and Random Products of Matrices,” in *Mathematical System Theory – Festschrift in Honor of Uwe Helmke on the Occasion of his Sixtieth Birthday*, K. Hüper and J. Trumpf, Eds. CreateSpace, 2013, pp. 291–300.

Refereed Journal Articles

- [1] B. Zhu, J. Lam, and M. Ogura, “Log-log convexity of an optimal control problem for positive linear systems,” *Automatica*, vol. 146, p. 110553, 2022.
- [2] C. Zhao, K. Sakurama, and M. Ogura, “Optimization of buffer networks via DC programming,” *IEEE Transactions on Circuits and Systems II: Express Briefs* (accepted for publication), 2022.
- [3] A. Fujioka, M. Ogura, and N. Wakamiya, “Shepherding heterogeneous flock with model-based discrimination,” *Advanced Robotics* (accepted for publication), 2022.
- [4] M. Nagahara, M. Ogura, and Y. Yamamoto, “Iterative greedy LMI for sparse control,” *IEEE Control Systems Letters*, vol. 6, pp. 986–991, 2022.
- [5] M. Kumazaki, M. Ogura, and T. Tachibana, “Dynamic service chain construction based on model predictive control in NFV environments,” *IEICE Transactions on Communications*, vol. E105-B, no. 4, 2022.
- [6] R. Himo, M. Ogura, and N. Wakamiya, “Iterative algorithm for shepherding unresponsive sheep,” *Mathematical Biosciences and Engineering*, vol. 19, no. 4, pp. 3509–3525, 2022.
- [7] M. Kishida* and M. Ogura*, “Temporal deep unfolding for constrained nonlinear stochastic optimal controls,” *IET Control Theory & Applications*, vol. 16, no. 2, pp. 139–150, 2022. (*equal contribution)
- [8] T. Kimura and M. Ogura, “Distributed 3D deployment of aerial base stations for on-demand communication,” *IEEE Transactions on Wireless Communications*, vol. 20, no. 12, pp. 7728–7742, 2021.
- [9] K. Hashimoto, Y. Onoue, M. Ogura, and T. Ushio, “Event-triggered control for mitigating SIS spreading processes,” *Annual Reviews in Control*, vol. 52, pp. 479–494, 2021.
- [10] K. Sugimoto, T. Aihara, M. Ogura, and K. Hanada, “Gain scheduling for sampled-data state estimation over lossy networks,” *Transactions of the Institute of Systems, Control and Information Engineers*, vol. 34, no. 11, pp. 287–293, 2021.

- [11] M. Nagahara, B. Krishnamachari, M. Ogura, A. Ortega, Y. Tanaka, Y. Ushifusa, and T. W. Valente, “Control, intervention, and behavioral economics over human social networks against COVID-19,” *Advanced Robotics*, vol. 35, no. 11, pp. 733–739, 2021.
- [12] C. Zhao, M. Ogura, M. Kishida, and A. Yassine, “Optimal resource allocation for dynamic product development process via convex optimization,” *Research in Engineering Design*, vol. 32, no. 1, pp. 71–90, 2021.
- [13] X. Chen, M. Ogura, and V. M. Preciado, “SDP-Based moment closure for epidemic processes on networks,” *IEEE Transactions on Network Science and Engineering*, vol. 7, no. 4, pp. 2850–2865, 2020.
- [14] M. Ogura, M. Kishida, and J. Lam, “Geometric programming for optimal positive linear systems,” *IEEE Transactions on Automatic Control*, vol. 65, no. 11, pp. 4648–4663, 2020.
- [15] W. Mei, C. Zhao, M. Ogura, and K. Sugimoto, “Mixed H_2/H_∞ control of delayed Markov jump linear systems,” *IET Control Theory Applications*, vol. 14, no. 15, pp. 2076–2083, 2020.
- [16] C. Zhao, M. Ogura, and K. Sugimoto, “Stability optimization of positive semi-Markov jump linear systems via convex optimization,” *SICE Journal of Control, Measurement, and System Integration*, vol. 13, no. 5, pp. 233–239, 2020.
- [17] M. Kishida*, M. Ogura*, Y. Yoshida, and T. Wadayama, “Deep learning-based average consensus,” *IEEE Access*, vol. 8, pp. 142 404 – 142 412, 2020. (*equal contribution)
- [18] X. Chen, M. Ogura, and V. M. Preciado, “Bounds on the spectral radius of digraphs from motif counts,” *SIAM Journal on Matrix Analysis and Applications*, vol. 41, no. 2, pp. 525–553, 2020.
- [19] N. Masuda, V. M. Preciado, and M. Ogura, “Analysis of the susceptible-infected-susceptible epidemic dynamics in networks via the non-backtracking matrix,” *IMA Journal of Applied Mathematics*, vol. 85, no. 2, pp. 214–230, 2020.
- [20] M. Ogura, W. Mei, and K. Sugimoto, “Synergistic effects in networked epidemic spreading dynamics,” *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 67, no. 3, pp. 496–500, 2020.
- [21] M. Ogura and V. M. Preciado, “Stability of SIS spreading processes in networks with non-Markovian transmission and recovery,” *IEEE Transactions on Control of Network Systems*, vol. 7, no. 1, pp. 349–359, 2020.
- [22] Y. Abe, M. Ogura, H. Tsuji, A. Miura, and S. Adachi, “Resource and network management framework for a large-scale satellite communications system,” *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, vol. E103, no. 2, pp. 492–501, 2020. **Telecom System Technology Student Award**, Telecommunication Advancement Foundation.
- [23] M. Ogura, J. Harada, M. Kishida, and A. Yassine, “Resource optimization of product development projects with time-varying dependency structure,” *Research in Engineering Design*, vol. 30, no. 3, pp. 435–452, 2019.
- [24] M. Ogura, V. M. Preciado, and N. Masuda, “Optimal containment of epidemics over temporal activity-driven networks,” *SIAM Journal on Applied Mathematics*, vol. 79, no. 3, pp. 986–1006, 2019.

- [25] W. Mei and M. Ogura, “Kronecker weights for instability analysis of Markov jump linear systems,” *IET Control Theory & Applications*, vol. 13, no. 3, pp. 360–366, 2019.
- [26] M. Wakaiki, M. Ogura, and J. P. Hespanha, “LQ-optimal sampled-data control under stochastic delays: gridding approach for stabilizability and detectability,” *SIAM Journal on Control and Optimization*, vol. 56, no. 4, pp. 2634–2661, 2018.
- [27] M. Ogura, A. Cetinkaya, T. Hayakawa, and V. M. Preciado, “State feedback control of Markov jump linear systems with hidden-Markov mode observation,” *Automatica*, vol. 89, pp. 65–72, 2018.
- [28] M. Ogura and V. M. Preciado, “Second-order moment-closure for tighter epidemic thresholds,” *Systems & Control Letters*, vol. 113, pp. 59–64, 2018.
- [29] M. Ogura and V. M. Preciado, “Optimal design of switched networks of positive linear systems via geometric programming,” *IEEE Transactions on Control of Network Systems*, vol. 4, no. 2, pp. 213–222, 2017.
- [30] M. Ogura, M. Wakaiki, H. Rubin, and V. M. Preciado, “Delayed bet-hedging resilience strategies under environmental fluctuations,” *Physical Review E*, vol. 95, p. 052404, 2017.
- [31] M. Ogura, V. M. Preciado, and R. M. Jungers, “Efficient method for computing lower bounds on the p -radius of switched linear systems,” *Systems & Control Letters*, vol. 94, pp. 159–164, 2016.
- [32] M. Ogura and V. M. Preciado, “Epidemic processes over adaptive state-dependent networks,” *Physical Review E*, vol. 93, p. 062316, 2016.
- [33] M. Ogura and V. M. Preciado, “Stability of Markov regenerative switched linear systems,” *Automatica*, vol. 69, pp. 169–175, 2016.
- [34] M. Ogura and V. M. Preciado, “Stability of spreading processes over time-varying large-scale networks,” *IEEE Transactions on Network Science and Engineering*, vol. 3, no. 1, pp. 44–57, 2016. Runner-up of **2019 IEEE TNSE Best Paper Award**.
- [35] M. Ogura and C. F. Martin, “Stability analysis of linear systems subject to regenerative switchings,” *Systems & Control Letters*, vol. 75, pp. 94–100, 2015.
- [36] M. Ogura and C. F. Martin, “A limit formula for joint spectral radius with p -radius of probability distributions,” *Linear Algebra and its Applications*, vol. 458, pp. 605–625, 2014.
- [37] 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.
- [38] 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.
- [39] M. Ogura and Y. Yamamoto, “Dissipativity of pseudorotational behaviors,” *IEEE Transactions on Automatic Control*, vol. 58, no. 4, pp. 823–833, 2013.
- [40] 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] A. Li, M. Ogura, Y. Tsunoda, and N. Wakamiya, "Proposal of farthest-agent targeting algorithm with indirect chasing," in *SICE Annual Conference 2022*, 2022, pp. 92–94.
- [2] A. Fujioka, M. Ogura, and N. Wakamiya, "Shepherding algorithm based on variant agent detection for heterogeneous flock," in *SICE Annual Conference 2022*, 2022, pp. 87–91.
- [3] Y. Deng, M. Ogura, A. Li, and N. Wakamiya, "Shepherding control for separating a single agent from a swarm," in *1st IFAC Workshop on Control of Complex Systems* (accepted), 2022.
- [4] M. Ogura, K. Kobayashi, and K. Sugimoto, "Static output feedback synthesis of time-delay linear systems via deep unfolding," in *17th IFAC Workshop on Time Delay Systems*, 2022, pp. 214–215.
- [5] M. Kishida and M. Ogura, "Temporal deep unfolding for nonlinear stochastic optimal control," in *7th International Conference on Advances in Control & Optimization of Dynamical Systems*, 2022, pp. 908–913.
- [6] M. Ogura and N. Wakamiya, "Model predictive control of fish schooling model with reduced-order prediction model," in *60th IEEE Conference on Decision and Control*, 2021, pp. 4115–4120.
- [7] M. Kishida and M. Ogura, "Temporal deep unfolding for nonlinear maximum hands-off control," in *SICE Annual Conference 2021*, 2021, pp. 1007–1010.
- [8] K. Kobayashi, M. Ogura, T. Kobayashi, and K. Sugimoto, "Deep unfolding-based output feedback control design for linear systems with input saturation," in *SICE International Symposium on Control Systems 2021*, 2021, pp. 33–39.
- [9] M. Kumazaki, M. Ogura, and T. Tachibana, "Service chain construction with efficient VNF sharing based on model predictive control," in *2020 International Conference on Emerging Technologies for Communications*, 2020, pp. M1–5.
- [10] K. Sugimoto, M. Ogura, K. Hanada, and T. Aihara, "Sampled-data suboptimal state estimation over lossy networks," in *52nd ISCTE International Symposium on Stochastic Systems Theory and Its Applications*, 2020.
- [11] C. Zhao, M. Ogura, and K. Sugimoto, "Finite-time control of discrete-time positive linear systems via convex optimization," in *SICE Annual Conference 2020*, 2020, pp. 1230–1235.
- [12] Y. Abe, M. Ogura, H. Tsuji, A. Miura, and S. Adachi, "Resource and network management for satellite communications systems: a chance-constrained approach," in *21th IFAC World Congress*, 2020, pp. 3304–3309.
- [13] T. Kimura and M. Ogura, "Distributed collaborative 3D-deployment of UAV base stations for on-demand coverage," in *IEEE INFOCOM 2020*. IEEE, 2020, pp. 1748–1757. Acceptance rate **19.8 percent**.
- [14] M. Aida, C. Takano, and M. Ogura, "On the fundamental equation of user dynamics and the structure of online social networks," in *NetSci-X 2020*, 2020, pp. 155–170.
- [15] M. Ogura, M. Kishida, K. Hayashi, and J. Lam, "Geometric programming for optimizing stability of distributed power control algorithms," in *SICE Annual Conference 2019*, 2019, pp. 679–680.

- [16] M. Ogura, W. Mei, and K. Sugimoto, "Upper-bounding dynamics on networked synergistic susceptible-infected-susceptible model," in *SICE Annual Conference 2019*, 2019, pp. 1430–1431.
- [17] M. Ogura, M. Kishida, and A. Yassine, "Optimizing product development projects under asynchronous and aperiodic system-local interactions," in *21st International DSM Conference*, 2019, pp. 97–106.
- [18] M. Ogura, M. Kishida, K. Hayashi, and J. Lam, "Resource allocation for robust stabilization of Foschini-Miljanic Algorithm," in *2019 American Control Conference*, 2019, pp. 4030–4035.
- [19] M. Kumazaki, M. Ogura, and T. Tachibana, "VNF management with model predictive control for multiple service chains," in *IEEE International Conference on Consumer Electronics – Taiwan*, 2019.
- [20] T. Tadenuma, M. Ogura, and K. Sugimoto, "Sampled-data state observation over lossy networks under round-robin scheduling," in *5th IFAC Conference on Analysis and Control of Chaotic Systems*, 2018, pp. 197–202. **Young Author Award Finalist.**
- [21] W. Mei and M. Ogura, "Instability analysis of Markov jump linear systems by spectral optimization," in *SICE Annual Conference 2018*, 2018, pp. 419–422.
- [22] M. Ogura, J. Wan, and S. Kasahara, "Model predictive control for energy-efficient operation of data centers with cold aisle containments," in *6th IFAC Conference on Nonlinear Model Predictive Control*, 2018, pp. 241–246.
- [23] M. Ogura and J. Harada, "Resource allocation for containing epidemics from temporal network data," in *23rd International Symposium on Mathematical Theory of Networks and Systems*, 2018, pp. 537–542.
- [24] M. Ogura, J. Tagawa, and N. Masuda, "Distributed agreement on activity driven networks," in *2018 American Control Conference*, 2018, pp. 4147–4152.
- [25] X. Chen, M. Ogura, K. R. Ghusinga, A. Singh, and V. M. Preciado, "Semidefinite bounds for moment dynamics: Application to epidemics on networks," in *56th IEEE Conference on Decision and Control*, 2017, pp. 2448–2454.
- [26] M. Wakaiki, M. Ogura, and J. P. Hespanha, "Linear quadratic control for sampled-data systems with stochastic delays," in *2017 American Control Conference*, 2017, pp. 1978–1983.
- [27] M. Ogura and V. M. Preciado, "Katz centrality of Markovian temporal networks: analysis and optimization," in *2017 American Control Conference*, 2017, pp. 5001–5006.
- [28] M. Ogura and V. M. Preciado, "Efficient containment of exact SIR Markovian processes on networks," in *55th IEEE Conference on Decision and Control*, 2016, pp. 967–972.
- [29] M. Ogura, M. Wakaiki, and V. M. Preciado, "Dynamic analysis of bet-hedging strategies as a protection mechanism against environmental fluctuations," in *55th IEEE Conference on Decision and Control*, 2016, pp. 4178–4183.
- [30] M. Wakaiki, M. Ogura, and J. P. Hespanha, "Robust stability under asynchronous sensing and control," in *55th IEEE Conference on Decision and Control*, 2016, pp. 5962–5967.

- [31] M. Ogura, A. Cetinkaya, T. Hayakawa, and V. M. Preciado, “Efficient criteria for stability of large-scale networked control systems,” in *6th IFAC Workshop on Distributed Estimation and Control in Networked Systems*, 2016, pp. 13–18.
- [32] V. M. Preciado and M. Ogura, “Structural analysis of spreading processes from ego-nets,” in *6th IFAC Workshop on Distributed Estimation and Control in Networked Systems*, 2016, pp. 345–350.
- [33] M. Ogura, M. Wakaiki, J. P. Hespanha, and V. M. Preciado, “ L^2 -gain analysis of regenerative switched linear systems under sampled-data state-feedback control,” in *2016 American Control Conference*, 2016, pp. 709–714.
- [34] M. Ogura and V. M. Preciado, “Optimal design of networks of positive linear systems under stochastic uncertainty,” in *2016 American Control Conference*, 2016, pp. 2930–2935.
- [35] M. Ogura and V. M. Preciado, “Cost-optimal switching protection strategy in adaptive networks,” in *54th IEEE Conference on Decision and Control*, 2015, pp. 3574–3579.
- [36] M. Ogura and V. M. Preciado, “Spreading processes over socio-technical networks with phase-type transmissions,” in *54th IEEE Conference on Decision and Control*, 2015, pp. 3548–3553.
- [37] C. Nowzari, M. Ogura, V. M. Preciado, and G. J. Pappas, “A general class of spreading processes with non-Markovian dynamics,” in *54th IEEE Conference on Decision and Control*, 2015, pp. 5073–5078.
- [38] M. Ogura, M. Nagahara, and V. M. Preciado, “ L^1 -optimal disturbance rejection for disease spread over time-varying networks,” in *SWARM 2015: The First International Symposium on Swarm Behavior and Bio-Inspired Robotics*, 2015, pp. 377–378.
- [39] C. Nowzari, M. Ogura, V. M. Preciado, and G. J. Pappas, “Optimal resource allocation for containing epidemics on time-varying networks,” in *49th Asilomar Conference on Signals, Systems and Computers*, 2015, pp. 1333–1337.
- [40] M. Ogura, A. Cetinkaya, and V. M. Preciado, “State-feedback stabilization of Markov jump linear systems with randomly observed markov states,” in *2015 American Control Conference*, 2015, pp. 1764–1769.
- [41] M. Ogura and V. M. Preciado, “Disease spread over randomly switched large-scale networks,” in *2015 American Control Conference*, 2015, pp. 1782–1787.
- [42] M. Ogura and R. M. Jungers, “Efficiently computable lower bounds for the p -radius of switching linear systems,” in *53rd IEEE Conference on Decision and Control*, 2014, pp. 5463–5468.
- [43] M. Ogura and C. F. Martin, “Mean stability of continuous-time semi-Markov jump linear positive systems,” in *2014 American Control Conference*, 2014, pp. 3261–3266.
- [44] M. Ogura and C. F. Martin, “On the mean stability of a class of switched linear systems,” in *52nd IEEE Conference on Decision and Control*, 2013, pp. 97–102.
- [45] M. Ogura and C. F. Martin, “Stability of switching systems and generalized joint spectral radius,” in *2013 European Control Conference*, 2013, pp. 3185–3190.
- [46] M. Ogura and C. F. Martin, “Stochastic properties of switched Riccati differential equations,” in *51st IEEE Conference on Decision and Control*, 2012, pp. 1319–1324.

- [47] M. Ogura, Y. Yamamoto, and J. C. Willems, “On the dissipativity of pseudorational behaviors,” in *49th IEEE Conference on Decision and Control*, 2010, pp. 1737–1742.
- [48] M. Ogura and Y. Yamamoto, “Dissipativity of pseudorational behaviors,” in *19th International Symposium on Mathematical Theory of Networks and Systems*, 2010, pp. 849–853.
- [49] Y. Yamamoto, J. C. Willems, and M. Ogura, “Pseudorational behaviors and Bezoutians,” in *19th International Symposium on Mathematical Theory of Networks and Systems*, 2010, pp. 1917–1921.
- [50] M. Ogura and Y. Yamamoto, “Hankel norm computation for pseudorational transfer functions,” in *48th IEEE Conference on Decision and Control held jointly with 2009 28th Chinese Control Conference*, 2009, pp. 5502–5507.
- [51] M. Nagahara, M. Ogura, and Y. Yamamoto, “A novel approach to repetitive control via sampled-data H^∞ filters,” in *7th Asian Control Conference*, 2009, pp. 160–165.
- [52] M. Nagahara, M. Ogura, and Y. Yamamoto, “Interpolation of nonuniformly decimated signals via sampled-data H^∞ optimization,” in *SICE Annual Conference 2008*, 2008, pp. 1151–1154.
- [53] M. Ogura, M. Nagahara, and Y. Yamamoto, “Optimal wavelet expansion via sampled-data H^∞ control theory,” in *SICE Annual Conference 2007*, 2007, pp. 1422–1426.

Invited and Hourly Talks

- [1] “When deep unfolding meets control engineering,” *37th International Technical Conference on Circuits \Systems, Computers and Communications*, 2022.
- [2] “Optimization of positive linear systems via geometric programming,” *Guandong University of Technology*, 2019.
- [3] “Optimization of positive linear systems via geometric programming,” *Shenzhen University*, 2019.
- [4] “Synthesis of positive linear systems by geometric programming,” *University of Hong Kong*, 2019.
- [5] “Networked epidemic spreading: modeling, analysis, and control,” *National Insitutite of Informatics*, 2018.
- [6] “Network epidemiology and control theory,” *University of Hong Kong*, 2018.
- [7] “Analysis and control of spreading processes over complex networks,” *Washington State University*, 2017.
- [8] “Analysis and control of spreading processes over complex networks,” *Tokyo University of Agriculture and Technology*, 2016.
- [9] “Stability analysis of switched linear systems with non-traditional switching signals,” in *GRASP special seminar*, University of Pennsylvania, 2014.
- [10] “Mean stability of switched linear systems,” *Université Catholique de Louvain*, 2013.

TEACHING ACTIVITIES

Osaka University

Basic Theory of Bio-networks (2021–present)
Informatics for Engineering Science 1 (2020–present)
Fundamentals of Information and Computer Sciences (2020–present)
Bio-network Engineering (2020–present)

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

Editorial Work

Associate Editor, IET Control Theory & Applications, 2022–present.
Associate Editor, Franklin Open, 2022–present.
Associate Editor, Journal of The Franklin Institute, 2020–present.
Associate Editor, The 5th IFAC Workshop on Distributed Estimation and Control in Networked Systems, 2015.

Organization of Conferences and Workshops

International Program Committee Secretary, 8th IFAC Conference on Nonlinear Model Predictive Control, 2024.

Registration Chair, 10th IFAC Symposium on Robust Control Design, 2022.

Program Committee member, International Conference on Complex Networks and their Applications, 2022.

Program Committee member, International Conference on Complex Networks and their Applications, 2021.

Program Committee member, International Conference on Complex Networks and their Applications, 2020.

Program & Steering Committee member, 52nd ISCIE International Symposium on Stochastic Systems Theory and Its Applications, 2020.

Local Arrangements Vice Chair, SICE Annual Conference 2018.

PhD External Examiner

Department of Electrical and Systems Engineering, University of Pennsylvania, 2019.

Journal Reviewer

Advanced Robotics; Annual Reviews in Control; Automatica; Applied Mathematics and Computation; Asian Journal of Control; Computer Communications; Discrete Mathematics; European Journal of Control European Physical Journal B; Foundations of Computational Mathematics; IEEE Access; IEEE/ACM Transactions on Computational Biology and Bioinformatics; IEEE Circuits and Systems Magazine; IEEE Control Systems Letters; IEEE Intelligent Systems; IEEE Transactions on Automatic Control; IEEE Transactions on Big Data; 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; Journal of Biological Dynamics; Journal of the Franklin Institute; Mathematics of Control, Signals, and Systems; Neurocomputing; Nonlinear Analysis: Hybrid Systems; Operations Research and Decisions; Physica A; Physics Letters A; SIAM Journal on Control and Optimization; SICE Journal of Control, Measurement, and System Integration; Stochastics and Dynamics; Systems and Control Letters; Research in Engineering Design;

Research Advising

PhD thesis supervision — completed

Chengyan Zhao, Nara Institute of Science and Technology (Apr 2018–Mar 2021)

Master and Bachelor thesis supervision

Deng Yaosheng, Master Thesis, Osaka University (Apr 2022–present)

2 BEng students, Osaka University (Apr 2022–present, one-year project)

Junpei Aizawa, Master Thesis, Osaka University (Apr 2021–present)

Anna Fujioka, Master Thesis, Osaka University (Apr 2021–present)

Aiyi Li, Master Thesis, Osaka University (Apr 2021–present)

Hirota Wada, Master Thesis, Osaka University (Apr 2021–present)

3 BEng students, Osaka University (Apr 2021–Mar 2022, one-year project)

2 BEng students, Osaka University (Apr 2020–Mar 2021, one-year project)
6 MEng students, Osaka University (Apr 2017–Mar 2020, two-year project)

Masaki Ogura, December 2022