Sadamori Kojaku

Contact

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Academic Position

02/2020–present Postdoctral Research Fellow
School of Informatics, Computing and Engineering
Indiana University Bloomington

04/2019–01/2020 Specially Appointed Professor (Postdoc)
Research Institute for Economics and Business Administration
Kobe University

04/2016–03/2019 Research Associate (Postdoc)
Department of Engineering Mathematics
University of Bristol, UK
(Core Research for Evolutional Science and Technology, JST)

Education

09/2015 Ph.D (Compute Science), Hokkaido University, Japan
(Graduate School of Information Science and Technology)
"A study on finding core communities in social networks"
Thesis supervisor: Prof. Mineichi Kudo

03/2012 M.Sc (System Engineering), Hokkaido University, Japan
(Graduate School of Information Science and Technology)
"A rationally oriented forgettable Profit Sharing"
Thesis supervisor: Prof. Hajime Igarashi

03/2010 B.Sc (System Engineering), Hokkaido University, Japan

Google Scholar

https://scholar.google.co.uk/citations?user=IyWt4R4AAAAJ&hl=en

Github

https://github.com/skojaku?tab=repositories

Journal papers

[A1] Sadamori Kojaku and Naoki Masuda. Constructing networks by filtering correlation matrices: A null model approach. Proceedings of the Royal Society A, **475**, 2231 (2019).

[A2] Sadamori Kojaku, Mengqiao Xu, Haoxiang Xia and Naoki Masuda. Multiscale core-periphery structure in a global liner shipping network. Scientific Reports, **9**, 404 (2019)

[A3] Sadamori Kojaku, Giulio Cimini, Guido Caldarelli and Naoki Masuda. Structural changes in the interbank market across the financial crisis from multiple core-periphery analysis. Journal of Network Theory in Finance, **4**, 33-51 (2018)

[A4] Naoki Masuda, Sadamori Kojaku and Yukie Sano. A configuration model for correlation matrices. Physical Review E, **98**, 012312 (2018)

[A5] Sadamori Kojaku and Naoki Masuda. A generalised significance test for individual communities in networks. Scientific Reports, **8**, 7351 (2018)

[A6] Sadamori Kojaku and Naoki Masuda. Core-periphery structure requires something else in the network. New Journal of Physics, **20**, 043012 (2018)

[A7] Sadamori Kojaku and Naoki Masuda. Finding multiple core-periphery pairs in networks. Physical Review E, **96**, 052313 (2017)

[A8] Sadamori Kojaku, Ichigaku Takigawa, Mineichi Kudo and Hideyuki Imai. Dense core model for cohesive subgraph discovery. Social Networks, **44**, 143–152 (2016)

Oral Presentation

[B1] ◦ Sadamori Kojaku, Giulio Cimini, Guido Caldarelli and Naoki Masuda. Structural changes in the interbank market across the financial crisis from multiple core-periphery analysis. International Conference on Network Science (NetSci), Vermont, USA, May 27–31 (2019)

[B2] ○ Sadamori Kojaku, Mengqiao Xu, Haoxiang Xia and Naoki Masuda. Multiscale core-periphery structure in a global liner shipping network. The 7th International Workshop on Complex Networks and Their Applications, Cambridge, UK, December 11–13 (2018)

[B3] Xia Cui, Sadamori Kojaku, Naoki Masuda and Danushka Bollegala. Solving feature spareness in text classification using core-periphery decomposition. In Proceedings of the 7th Joint Conference on Lexical and Computational Semantics, 225-264 (ACL, New Orleans, USA, 2018)

[B4] ○ Sadamori Kojaku and Naoki Masuda. Core-periphery structure in degree-heterogeneous networks. International Conference on Network Science X (NetSci-X), Hangzhou, China, January 5–8 (2018)

[B5] ○ Sadamori Kojaku. Identifying core-periphery structure of networks across different scales using random walks. Complex Systems and Dynamics Meeting (CoSyDy), July 25 (2017)

[B6] ○ Sadamori Kojaku and Naoki Masuda. Finding multiple core-periphery structure with random walks. The 5th International Workshop on Complex Networks and Their Applications, Milan, Italy, November 30–December 2 (2016)

[B7] ○ Sadamori Kojaku, Mineichi Kudo, Ichigaku Takigawa and Hideyuki Imai. Community change detection in dynamic networks in noisy environment. The 24th International Conference on World Wide Web (WWW), Florence, Italy, May 18–22 (2015)

[B8] ○ Sadamori Kojaku, Mineichi Kudo, Ichigaku Takigawa and Hideyuki Imai. Structual change point detection for social networks. The World Congress on Engineering (IAENG), London, United Kingdom, July 3–5 (2013)

Poster

[C1] ○ Sadamori Kojaku and Naoki Masuda. Constructing networks from correlation matrices: An application to economical data. Threshold Networks, Nottingham UK, 22-24 July (2019)

[C2] ○ Sadamori Kojaku and Naoki Masuda. A generalised significance test for individual communities in networks. International Conference on Network Science (NetSci), Paris, France, June 11–15 (2018)

[C3] ○ Sadamori Kojaku and Naoki Masuda. Multi-scale organisation of core-periphery structure in networks. The 1st Laten American Conference on Complex Networks (LANET), Puebla, Mexico, September 25–29 (2017)

[C4] ○ Sadamori Kojaku and Naoki Masuda. Core-periphery structure of networks: Consideration for random heterogeneous networks. International Conference on Network Science (NetSci), Indianapolis, Indiana, United States, June 19–23 (2017)

[C5] ○ Sadamori Kojaku and Naoki Masuda. An extension of modularity for finding multiple core/periphery structure in networks. International Conference on Network Science X (NetSci-X), Tel-Aviv, Israel, January 15–18 (2017)

Invited Talk

[D1] ○ Sadamori Kojaku ネットワークコアの検出アルゴリズムとその応用. ネットワーク科学セミナー. 統計数理研究所. 8.28-30 (2019)

Award

[E1] NetSci-X Best Contribution on Financial Networks Award. NetSci-X (2017) [1/58 presenters]

[E2] Dean Award. Graduate School of Information Science and Technology, Hokkaido Univ. (2015)

[E3] Best Student Award. The World Congress on Engineering (2013)

Referee activities

Journal of Complex Networks, Journal of Computational Social Science, PLOS ONE, Scientific Reports

Programming

Scientific computation: Python, C++, MATLAB [in order of frequency of use]
Data analysis: Network of 220M papers, Japanese demographic data (150M samples)
Web: Web chair (NetSci-X 2020 Tokyo)
Visualization: Phys. Rev. E Kaleidoscope, Header image of NetSci-X 2020

Miscellaneous

Languages: Japanese (native) and English (fluent)
Hobbies: Sailing and Kendo (a Japanese martial art)

Last updated: 02/03/2020