

Jinhyuk Yun

CONTACT INFORMATION	Department of Smart Systems Software, Soongsil University 369 Sangdo-ro, Dongjak-gu, Seoul, 06978, Republic of Korea	TEL: FAX: E-mail: jinhyuk.yun@ssu.ac.kr Web: https://bluekura.github.io
ACADEMIC · INDUSTRIAL POSITIONS	Soongsil University , Seoul, South Korea Assistant Professor, School of AI Convergence KISTI , Seoul, South Korea Senior Research Scientist, Future Technology Analysis Center Naver Corporation , Seongnam, South Korea Data Scientist, Naver Search KAIST , Daejeon, South Korea Research Assistant Teaching Assistant	Mar 20 – present Dec 16 – Feb 20 Aug 16 – Dec 16 Feb 13 – Aug 16 Feb 11 – Dec 12
EDUCATION	Ph.D. Physics, KAIST (Daejeon, South Korea), August 2016 <ul style="list-style-type: none">• Thesis topic: Theoretical study on a Spreading in Human Society• Advisor: Professor Hawoong Jeong B.S. Physics, KAIST (Daejeon, South Korea), February 2010 Exchange Student, INSA (Lyon, France), Aug. 2008 - Jul. 2009	
TEACHING AND ADVISING	Assistant Professor, Soongsil University Big Data Programming Engineering Mathematics Programming Basics 2 Probability and Statistics Data Structure Teaching Assistant, KAIST Statistical Physics Thermal Physics Advanced Physics II Advanced Physics I	Spring 2022, 2011 Spring 2022 Fall 2021 Fall 2022, 2021, 2020 Spring 2021, 2020 Fall 2012 Spring 2012 Fall 2011 Spring 2011
GRANT, AWARDS, AND FELLOWSHIPS	Grants <ul style="list-style-type: none">• PI, Korea Institute of Science and Technology Information, A study on efficient clustering methods for large-scale scientific literature dataset, 04/2022 – 10/2022• PI, National Research Foundation of Korea (Mid-Career Researcher Program), A study on the hidden bias of artificial intelligence and big data from a complex system analysis, 09/2020 – 02/2022• PI, National Research Foundation of Korea (Strategic Project on the Industrial Mathematics), Study on the Knowledge Ecosystem of 4th Industrial Revolution using Big Data, 09/2017 – 08/2020	

Awards

- Outstanding Researcher Award (Best Paper), Korea Institute of Science and Technology Information (Daejeon, South Korea), 2019
- Outstanding Young Researcher Award, Korea Institute of Science and Technology Information (Daejeon, South Korea), 2018
- Young Investigator Training Award, Challenges in Data Science (Matera, Italy), 2016
- Best project award (1st prize), The 5th KIAS CAC Summer School on Parallel Computing (Seoul, South Korea), 2014
- Bronze award, The 5th BK21 Young Physicists Workshop (Daejeon, South Korea), 2012

Scholarship

- National Graduate Science & Technology Scholarship, 02/2010–12/2015
- National Undergraduate Science & Technology Scholarship, 03/2005–12/2009

RESEARCH INTERETS Data Science, Network Science, Artificial Intelligence, Machine Learning, Modeling Human Behavior, Computational Social Science, Econophysics, Cultural Science, Science of Science, Scientometrics

PUBLICATIONS

Articles

- Eunrang Kwon, **Jinhyuk Yun**, Jeong-han Kang, The effect of the COVID-19 pandemic on gendered research productivity and its correlates, *Journal of Informetrics*, 17(1), 101380 (2023).
- Sungyong Kim, **Jinhyuk Yun**, Analysis of risk propagation using the world trade network, *Journal of the Korean Physical Society*, 81(7), 697–706 (2022).
- Juyoung Kim, **Jinhyuk Yun**, Crime and social environments: differences between misdemeanors and felonies, *Journal of the Korean Physical Society*, 81(2), 179–190 (2022).
- Taekho You, Jinseo Park, June Young Lee, **Jinhyuk Yun**, Woo-Sung Jung, Disturbance of questionable publishing to academia, *Journal of Informetrics*, 16(2), 101294 (2022).
- **Jinhyuk Yun**, Generalization of bibliographic coupling and co-citation using the node split network, *Journal of Informetrics*, 16(2), 101291 (2022).
- Kim Danu, Lee Damin, Jaehyeon Myung, Changwook Jung, Inho Hong, Diego Sez-Trumper, **Jinhyuk Yun**, Jung Woo-Sung, Meeyoung Cha, Information Collection of COVID-19 Pandemic Using Wikipedia Template Network, *Journal of KIISE*, 49(5), 347–353 (2021)
- **Jinhyuk Yun**, S. Ahn, and J.Y. Lee, Return to basics: Clustering of scientific literature using structural information, *Journal of Informetrics* 14(4), 101099 (2020).
- **Jinhyuk Yun**, S.H. Lee, and H. Jeong, Early onset of structural inequality in the formation of collaborative knowledge in all Wikimedia projects, *Nature Human Behaviour* 3, 155–163 (2019) [Featured as the cover article]
- Jisung Yoon, **Jinhyuk Yun**, Woo-Sung Jung, Build Up of a Subject Classification System from Collective Intelligence, *New Phys.: Sae Mulli* 68, 647–654 (2018)
- **Jinhyuk Yun**, S.H. Lee, and H. Jeong, Intellectual interchanges in the history of massive online open-editing encyclopedia, Wikipedia, *Phys. Rev. E* 93, 012307 (2016)
- **Jinhyuk Yun**, P.-J. Kim, and H. Jeong, Anatomy of scientific evolution, *PLoS ONE* 10(2): e0117388 (2015)

Books and reports

- **Jinhyuk Yun** and Young Jin Kim, Future of the open innovation on the GitHub, KISTI Data Insight No.3 (2018)
- Jinseo Park, **Jinhyuk Yun**, and June Young Lee, Comparative study of the predatory journals by country and field, KISTI Data Insight No.3 (2019)

SELECTED TALKS

Invited conference talks and lectures

- AI, Data and Physics (Pohang, South Korea) 11/8/2019
- AI+X Forum: AI+Applied Science (Daejeon, South Korea) 6/21/2019
- AI Friends Forum (Daejeon, South Korea) 6/19/2019
- Econophysics Workshop (Gwangju, South Korea) 11/16/2018
- WikiConference Seoul (Seoul, South Korea) 10/6/2018
- The 5th International Workshop on Physics of Social Complexity (Pohang, South Korea) 2/11/2017

Invited colloquia and seminars

- School of Informatics, Computing & Engineering, Indiana University Bloomington (Bloomington, IN, United States) 5/8/2019
- Center for Complex Networks and Systems Research (CNetS), Indiana University Bloomington (Bloomington, IN, United States) 5/7/2019
- Northwestern Institute on Complex Systems (NICO), Northwestern University (Evanston, IL, United States) 5/3/2019
- Department of Physics Education, Chosun University (Gwangju, South Korea) 4/3/2019
- Department of Electrical Engineering, Postech (Pohang, South Korea) 5/4/2018
- Center of Bio and Basic Science R&D Coordination, KISTEP (Seoul, South Korea) 3/19/2018
- Department of Physics, University of Seoul (Seoul, South Korea) 2/20/2018
- Statistical Physics Lab, Department of Physics, Inha University (Incheon, South Korea) 12/01/2017

SERVICE

Academic Reviewer

- PC member: Conference on Complex Systems 2019
- Journals: Nature Human Behaviour; Scientific Reports; The European Physical Journal B (EPJB); Journal of the Korean Physical Society (JKPS); New Physics: Sae Mulli.
- Conferences: The 9th International AAAI Conference on Web And Social Media (ICWSM-15); The 10th International AAAI Conference on Web And Social Media (ICWSM-15).

RESEARCH TECHNIQUES

Languages: C, C++, Python, CUDA, MATLAB, *etc.*

Machine learning: Keras, Tensorflow, Scikit-learn, Gensim, *etc.*

Data visualization: Gephi, Cytoscape, Matplotlib, Gnuplot, *etc.*

Analysis tools: Network X, Pandas, Dask, OpenMP, numpy, scipy, *etc.*

System operation: Served as a system administrator for 8 years

1) 50 nodes network cluster (Hadoop, Spark, MPI, SGE, *etc.*)

2) 192 cores workstation

3) 128GB/256GB large-memory workstations

General: Agent-based modeling, Monte Carlo simulation, Statistical methods, Information theory, Game theory.

Human languages: Korean (Native), English (Advanced), French (Intermediate), Japanese (Basic)

IN THE PRESS

Research highlights

- Early onset of structural inequality in the formation of collaborative knowledge in all Wikimedia projects
 - Nature Human Behaviour Editorial: Inequalities in crowdsourced knowledge
 - Behavioural and Social Sciences at Nature Research: How I met my collaborators
 - The Korea Bizwire: Study Shows a Monopolizing Few Can Control Collective Intelligence
 - NRC Handelsblad: Op Wikimedia is niet iedereen gelijk (in Dutch)
 - 한겨레: 집단지성의 성체 위키백과, 지식정보의 편향 넘을 수 있을까 (in Korean)
 - 과학동아: 숙제할 때 찾는 위키백과 서로 못 믿어서 내용이 정확해졌다? (in Korean)
 - 중앙일보: 인터넷, 정보 평등 세상 같지만, 실상은 소수가 여론 쉽게 독점 (in Korean)
 - 중앙일보: 인터넷 여론, 소수가 쉽게 독점 (in Korean)
 - 경향신문: 온라인 집단지성, 다수 아닌 소수가 독점 (in Korean)
 - 연합뉴스: 정보 틀어쥔 소수가 가짜뉴스를 집단지성으로 눈속임한다 (in Korean)
 - 동아사이언스: 인터넷 공간 알고 보니 소수가 독점한 세상 (in Korean)
 - 조선비즈: 인터넷서 집단지성 축적될수록 여론조작 쉬워져 (in Korean)
 - 디지털타임스: 가짜뉴스는 왜 증폭될까...소수에 의한 독점 현상 규명 (in Korean)
 - 금강일보: [사이언스톡톡] 왜 가짜뉴스가 관철까 (in Korean)
 - 아시아경제: 인터넷 집단지성, 빅데이터로 보니 소수 독점 우려 (in Korean)
 - 서울경제: 집단지성 형성과정의 비밀, 빅데이터로 풀어내다 (in Korean)
 - 한국경제: 정보 틀어쥔 소수가 가짜뉴스를 집단지성으로 눈속임한다 (in Korean)
 - 파이낸셜뉴스: 가짜뉴스+여론조작 빅 마우스 찾아냈다 (in Korean)
 - 헬로디디: 집단지성 형성 비밀?...빅데이터로 풀다 (in Korean)
 - 내외뉴스통신: KISTI, 빅데이터로 집단지성 형성과정의 비밀 풀어 (in Korean)
 - e경제뉴스: 인터넷여론...집단지성인가 바보들의 행진인가 (in Korean)
 - 뉴스웍스: 온라인 여론 소수가 쉽게 독점한다 (in Korean)
 - UPI뉴스: 정보 가진 소수가 여론 독점하고 왜곡 (in Korean)
 - 이웃집과학자: 위키백과 집단지성보다 소수독점 경향 ↑ (in Korean)
 - IT NEWS: 정보 가진 소수가 여론 독점하고 왜곡 (in Korean)
- Intellectual interchanges in the history of the massive online open-editing encyclopedia, Wikipedia
 - APS Physics Focus: Wikipedia Articles Separate into Four Categories
 - The Washington Post: Wikipedia's social structures resemble a bureaucratic corporation, studies say

- The Speaker: Wikipedia Vulnerabilities Explored In New Research
- Asian Scientist: What The Editing History Of Wikipedia Reveals
- Gizmodo: Wikipedia Is Basically a Corporate Bureaucracy, According to a New Study
- Science Alert: Wikipedia is basically just another giant bureaucracy, study finds
- Fudzilla: Wikipedia has become 20th century bureaucracy
- Weekendavisen: Leksikalt kartel (in Danish)
- Die Tageszeitung: Der aussterbende mnnliche Schwarm (in German)
- Der Standard.: Wikipedia: Es droht das Ende der Schwarmintelligenz (in German)
- Actualite Houssenia Writing: Wikipedia, juste une norme bureaucratie ? (in French)
- Boa Informacao: Como a Wikipdia se tornou uma comunidade mais fechada, e como resolver isto (in Portuguese)
- ギズモドジャパン (Gizmodo Japan): ウィキペディアは少のスパエディタが支配する官僚社 (in Japanese)
- SG: Szomor jv vrhat a Wikipdira (in Hungarian)
- Hankyoreh ScienceOn (한겨레 사이언스온): 위키백과 15년 문서 편집의 빅데이터 분석해보니... (in Korean)
- Physics and High Technology (물리학과 첨단기술): 위키백과의 장기간 편집 기록 분석을 통한 위키백과 문서의 분류와 집단지성의 형성과정 (in Korean)
- Anatomy of Scientific Evolution
 - Physics Today: The Dayside : The psychohistory of scientific evolution