

Kijung SHIN

CONTACT INFORMATION	Building 9, Room 9503 85, Hoegi-ro, Dongdaemun-gu, Seoul, 02455, Republic of Korea	Phone: + 82 - 2 - 958 - 3915 Email: kijungs@kaist.ac.kr Homepage: https://kijungs.github.io
INTERESTS	Data Mining, Graph Algorithms, Network Science	
EDUCATION	Carnegie Mellon University , Pittsburgh, PA, USA Ph.D. in Computer Science Thesis: “Mining Large Dynamic Graphs and Tensors” Advisor: Prof. Christos Faloutsos	08/2015 - 02/2019
	Seoul National University , Seoul, Korea B.S. in Computer Science & Engineering; and B.A. in Economics <i>Ranked 1st in the College of Engineering</i>	03/2008 - 08/2015
POSITIONS	KAIST , Seoul, Korea Associate Professor, Kim Jaechul Graduate School of AI	03/2023 - Present
	KAIST , Seoul, Korea Adjunct Professor, School of Electrical Engineering (Computer Division)	09/2019 - Present
	KAIST , Seoul, Korea Ewon Endowed Assistant Professor, Kim Jaechul Graduate School of AI	09/2019 - 02/2023
	KAIST , Daejeon, Korea Assistant Professor, School of Electrical Engineering (Computer Division)	02/2019 - 09/2019
	LinkedIn Corporation , Mountain View, CA, USA Research Intern, Growth Relevance Team	05/2018 - 08/2018
	LinkedIn Corporation , Mountain View, CA, USA Research Intern, Growth Relevance Team	05/2017 - 08/2017
	CYRAM , Seoul, Korea Associate Researcher	01/2011 - 12/2013
AWARDS & HONORS	Received the IEEE ICDM Best Student Paper Runner-up Award	2023
	Selected as One of the Best-Ranked Papers of IEEE ICDM 2023	2023
	Received the Songam Distinguished Research Award	2022
	Selected as One of the Best-Ranked Papers of IEEE ICDM 2021	2021
	Received the Samsung Patent Award	2021
	Appointed to an Ewon Endowed Assistant Professor	2021
	Selected as One of the Best-Ranked Papers of IEEE ICDM 2020	2020
	Awarded the Siebel Scholar Fellowship	2018
	Selected as One of the Best-Ranked Papers of IEEE ICDM 2016	2016
	Received the SIGKDD Best Research Paper Award	2016
	Awarded the Korea Foundation for Advanced Studies Scholarship	2015
	Received the Best Senior Thesis Award , Seoul National University	2015
	Received the Samsung Humantech Paper Award (1st in CS)	2015
	Awarded the Kwanjeong Educational Foundation Scholarship	2010

- TUTORIALS
- [1] Hypergraph Neural Networks: An In-depth and Step-By-Step Guide
Sunwoo Kim*, Soo Yong Lee*, Yue Gao, Alessia Antelmi, Mirko Polato, and [Kijung Shin](#)
ACM KDD 2024
 - [2] Mining of Real-world Hypergraphs: Patterns, Tools, and Generators
Geon Lee, Jaemin Yoo, and [Kijung Shin](#)
ACM KDD 2023 / WWW 2023 / IEEE ICDM 2022 / ACM CIKM 2022
- REFEREED PAPERS
- [1] Towards Better Utilization of Multiple Views for Bundle Recommendation
Kyungho Kim, Sunwoo Kim, Geon Lee, and [Kijung Shin](#)
ACM CIKM 2024 (Short Paper) (Acceptance Rate $\approx 27\%$)
 - [2] Post-Training Embedding Enhancement for Long-Tail Recommendation
Geon Lee, Kyungho Kim, and [Kijung Shin](#)
ACM CIKM 2024 (Short Paper) (Acceptance Rate $\approx 27\%$)
 - [3] A Survey on Hypergraph Neural Networks: An In-Depth and Step-By-Step Guide
Sunwoo Kim*, Soo Yong Lee*, Yue Gao, Alessia Antelmi, Mirko Polato, and [Kijung Shin](#)
ACM KDD 2024 (Survey Paper) (Acceptance Rate $\approx 44\%$)
 - [4] Compact Decomposition of Irregular Tensors for Data Compression:
From Sparse to Dense to High-Order Tensors
Taehyung Kwon, Jihoon Ko, Jinhong Jung, Jun-Gi Jang, and [Kijung Shin](#)
ACM KDD 2024 (Acceptance Rate $\approx 20\%$)
 - [5] SLADE: Detecting Dynamic Anomalies in Edge Streams without Labels
via Self-Supervised Learning
Jongha Lee, Sunwoo Kim, and [Kijung Shin](#)
ACM KDD 2024 (Acceptance Rate $\approx 20\%$)
 - [6] Unsupervised Alignment of Hypergraphs with Different Scales
Manh Tuan Do and [Kijung Shin](#)
ACM KDD 2024 (Acceptance Rate $\approx 20\%$)
 - [7] Tackling Complex Conditions in Unsupervised Combinatorial Optimization: Cardinality,
Minimum, Covering, and More
Fanchen Bu, Hyeonsoo Jo, Soo Yong Lee, Sungsoo Ahn, and [Kijung Shin](#)
ICML 2024 (Acceptance Rate $\approx 28\%$)
 - [8] Feature Distribution on Graph Topology Mediates the Effect of Graph Convolution:
Homophily Perspective
Soo Yong Lee, Sunwoo Kim, Fanchen Bu, Jaemin Yoo, Jiliang Tang, and [Kijung Shin](#)
ICML 2024 (Acceptance Rate $\approx 28\%$)
 - [9] Sign is Not a Remedy: Multiset-to-Multiset Message Passing for Learning on Heterophilic Graphs
Langzhang Liang, Sunwoo Kim, [Kijung Shin](#), Zenglin Xu, Shirui Pan, and Yuan Qi
ICML 2024 (Acceptance Rate $\approx 28\%$)
 - [10] FlowerFormer: Empowering Neural Architecture Encoding using a Flow-aware Graph Transformer
Dongyeong Hwang, Hyunju Kim, Sunwoo Kim, and [Kijung Shin](#)
IEEE/CVF CVPR 2024 (Acceptance Rate $\approx 24\%$)
 - [11] VilLain: Self-Supervised Learning on Homogeneous Hypergraphs without Features
via Virtual Label Propagation
Geon Lee, Soo Yong Lee, and [Kijung Shin](#)
WWW 2024 (Acceptance Rate $\approx 20\%$)

- [12] Self-Guided Robust Graph Structure Refinement
Yeonjun In, Kanghoon Yoon, Kibum Kim, [Kijung Shin](#), and Chanyoung Park
WWW 2024 (Acceptance Rate \approx 20%)
- [13] HypeBoy: Generative Self-Supervised Representation Learning on Hypergraphs
Sunwoo Kim, Shinhwan Kang, Fanchen Bu, Soo Yong Lee, Jaemin Yoo, and [Kijung Shin](#)
ICLR 2024 (Acceptance Rate \approx 31%)
- [14] Spear and Shield: Adversarial Attacks and Defense Methods for Model-Based Link Prediction on Continuous-Time Dynamic Graphs
Dongjin Lee, Juho Lee, and [Kijung Shin](#)
AAAI 2024 (Acceptance Rate \approx 24%)
- [15] VITA: ‘Carefully Chosen and Weighted Less’ Is Better in Medication Recommendation
Taeri Kim, Jiho Heo, Hongil Kim, [Kijung Shin](#), and Sang-Wook Kim
AAAI 2024 (Oral Presentation Acceptance Rate \approx 0.6%)
Selected for Oral Presentation
- [16] Representative and Back-In-Time Sampling from Real-world Hypergraphs
Minyoung Choe, Jaemin Yoo, Geon Lee, Woonsung Baek, U Kang, and [Kijung Shin](#)
ACM TKDD (SCI(E) Journal, 2024)
- [17] Deep Learning Model for Heavy Rainfall Nowcasting in South Korea
Seok-Geun Oh, Seok-Woo Son, Young-Ha Kim, Chanil Park, Jihoon Ko, [Kijung Shin](#), Ji-Hoon Ha, and Hyesook Lee
Weather and Climate Extremes (SCI(E) Journal, 2024)
- [18] Random Walk with Restart on Hypergraphs:
Fast Computation and an Application to Anomaly Detection
Jaewan Chun, Geon Lee, [Kijung Shin](#), and Jinhong Jung
Data Mining and Knowledge Discovery (SCI(E) Journal, 2024)
- [19] Hypergraph Motifs and Their Extensions Beyond Binary
Geon Lee*, Seokbum Yoon*, Jihoon Ko, Hyunju Kim, and [Kijung Shin](#)
The VLDB Journal (SCI(E) Journal, 2024)
- [20] TensorCodec: Compact Lossy Compression of Tensors without Strong Data Assumptions
Taehyung Kwon, Jihoon Ko, Jinhong Jung, and [Kijung Shin](#)
IEEE ICDM 2023 (Long Presentation Acceptance Rate \approx 9%)
Received the IEEE ICDM Best Student Paper Runner-up Award
Selected as One of the Best-Ranked Papers of ICDM 2023 for Fast-track Journal Invitation
- [21] Robust Graph Clustering via Meta Weighting for Noisy Graphs
Hyeonsoo Jo, Fanchen Bu, and [Kijung Shin](#)
ACM CIKM 2023 (Acceptance Rate \approx 24%)
- [22] You’re Not Alone in Battle: Combat Threat Analysis Using Attention Networks and a New Open Benchmark
Soo Yong Lee*, Juwon Kim*, Kiwoong Park, Dongkuk Ryu, Sangheun Shim, and [Kijung Shin](#)
ACM CIKM 2023 (Short Paper) (Acceptance Rate \approx 27%)
- [23] How Transitive Are Real-World Group Interactions? - Measurement and Reproduction
Sunwoo Kim, Fanchen Bu, Minyoung Choe, Jaemin Yo, and [Kijung Shin](#)
ACM KDD 2023 (Acceptance Rate \approx 22%)
- [24] On Improving the Cohesiveness of Graphs by Merging Nodes:
Formulation, Analysis, and Algorithm
Fanchen Bu and [Kijung Shin](#)
ACM KDD 2023 (Acceptance Rate \approx 22%)

- [25] Classification of Edge-dependent Labels of Nodes in Hypergraphs
 Minyoung Choe, Sunwoo Kim, Jaemin Yo, and [Kijung Shin](#)
ACM KDD 2023 (Acceptance Rate \approx 22%)
- [26] Towards Deep Attention in Graph Neural Networks: Problems and Remedies
 Soo Yong Lee, Fanchen Bu, Jaemin Yoo, and [Kijung Shin](#)
ICML 2023 (Acceptance Rate \approx 28%)
- [27] NeuKron: Constant-Size Lossy Compression of Sparse Reorderable Matrices and Tensors
 Taehyung Kwon*, Jihoon Ko*, Jinhong Jung, and [Kijung Shin](#)
WWW 2023 (Acceptance Rate \approx 19%)
- [28] Characterization of Simplicial Complexes Using Simplets Beyond Four Nodes
 Hyunju Kim, Jihoon Ko, Fanchen Bu, and [Kijung Shin](#)
WWW 2023 (Acceptance Rate \approx 19%)
- [29] Disentangling Degree-related Biases and Interest for Out-of-Distribution Generalized
 Directed Network Embedding
 Hyunsik Yoo, Yeon-Chang Lee, [Kijung Shin](#), and Sang-Wook Kim
WWW 2023 (Acceptance Rate \approx 19%)
- [30] I'm Me, We're Us, and I'm Us: Tridirectional Contrastive Learning on Hypergraphs
 Dongjin Lee and [Kijung Shin](#)
AAAI 2023 (Acceptance Rate \approx 20%)
- [31] Robust and Efficient Alignment of Calcium Imaging Data through Simultaneous
 Low Rank and Sparse Decomposition
 Junmo Cho*, Seungjae Han*, Eun-Seo Cho, [Kijung Shin](#), and Young-Gyu Yoon
IEEE/CVF WACV 2023 (Acceptance Rate \approx 41%)
- [32] Reciprocity in Directed Hypergraphs: Measures, Findings, and Generators
 Sunwoo Kim, Minyoung Choe, Jaemin Yoo, and [Kijung Shin](#)
Data Mining and Knowledge Discovery (SCI(E) Journal, 2023)
- [33] Datasets, Tasks, and Training Methods for Large-Scale Hypergraph Learning
 Sunwoo Kim*, Dongjin Lee*, Yul Kim, Jungho Park, Taeho Hwang, and [Kijung Shin](#)
Data Mining and Knowledge Discovery (SCI(E) Journal, 2023)
- [34] Improving the Core Resilience of Real-world Hypergraphs
 Manh Tuan Do and [Kijung Shin](#)
Data Mining and Knowledge Discovery (SCI(E) Journal, 2023)
- [35] Hypercore Decomposition for Non-Fragile Hyperedges:
 Concepts, Algorithms, Observations, and Applications
 Fanchen Bu, Geon Lee, and [Kijung Shin](#)
Data Mining and Knowledge Discovery (SCI(E) Journal, 2023)
- [36] Interplay between Topology and Edge Weights in Real-World Graphs:
 Concepts, Patterns, and an Algorithm
 Fanchen Bu, Shinhwan Kang, and [Kijung Shin](#)
Data Mining and Knowledge Discovery (SCI(E) Journal, 2023)
- [37] Temporal Hypergraph Motifs
 Geon Lee and [Kijung Shin](#)
Knowledge and Information Systems (SCI(E) Journal, 2023)
Invited as One of the Best-Ranked Papers of ICDM 2021

- [38] Evaluation of Deep-Learning-Based Very Short-Term Rainfall Forecasts in South Korea
Seok-Geun Oh, Chanil Park, Seok-Woo Son, Jihoon Ko, [Kijung Shin](#), Sunyoung Kim, and Junsang Park
Asia-Pacific Journal of Atmospheric Sciences (SCI(E) Journal, 2023)
- [39] Two-Stage Training of Graph Neural Networks for Graph Classification
Manh Tuan Do, Noseng Park, and [Kijung Shin](#)
Neural Processing Letters (SCI(E) Journal, 2023)
- [40] Reciprocity in Directed Hypergraphs: Measures, Findings, and Generators
Sunwoo Kim, Minyoung Choe, and [Kijung Shin](#)
IEEE ICDM 2022 (Acceptance Rate $\approx 20\%$)
- [41] Set2Box: Similarity Preserving Representation Learning for Sets
Geon Lee, Chanyoung Park, and [Kijung Shin](#)
IEEE ICDM 2022 (Acceptance Rate $\approx 20\%$)
- [42] MARIO: Modality-Aware Attention and Modality-Preserving Decoders for Multimedia Recommendation
Taeri Kim*, Yeon-Chang Lee*, [Kijung Shin](#), and Sang-Wook Kim
ACM CIKM 2022 (Acceptance Rate $\approx 23\%$)
- [43] HashNWalk: Hash and Random Walk Based Anomaly Detection in Hyperedge Streams
Geon Lee, Minyoung Choe, [Kijung Shin](#)
IJCAI 2022 (Acceptance Rate $\approx 15\%$)
- [44] AHP: Learning to Negative Sample for Hyperedge Prediction
Hyunjin Hwang*, Seungwoo Lee*, Chanyoung Park, and [Kijung Shin](#)
ACM SIGIR 2022 (Short Paper) (Acceptance Rate $\approx 25\%$)
- [45] Are Edge Weights in Summary Graphs Useful? - A Comparative Study
Shinhwan Kang, Kyuhan Lee, and [Kijung Shin](#)
PAKDD 2022 (Acceptance Rate $\approx 19\%$)
- [46] Personalized Graph Summarization: Formulation, Scalable Algorithms, and Applications
Shinhwan Kang, Kyuhan Lee, and [Kijung Shin](#)
IEEE ICDE 2022 (Acceptance Rate $\approx 27\%$)
- [47] SLUGGER: Lossless Hierarchical Summarization of Massive Graphs
Kyuhan Lee*, Jihoon Ko*, and [Kijung Shin](#)
IEEE ICDE 2022 (Acceptance Rate $\approx 27\%$)
- [48] MiDaS: Representative Sampling from Real-world Hypergraphs
Minyoung Choe, Jaemin Yoo, Geon Lee, Woonsung Baek, U Kang, and [Kijung Shin](#)
WWW 2022 (Acceptance Rate $\approx 18\%$)
- [49] On the Persistence of Higher-Order Interactions in Real-World Hypergraphs
Hyunjin Choo and [Kijung Shin](#)
SDM 2022 (Acceptance Rate $\approx 28\%$)
- [50] Meta-Learning for Online Update of Recommender Systems
Minseok Kim, Hwanjun Song, Yooju Shin, Dongmin Park, [Kijung Shin](#), and Jae-Gil Lee
AAAI 2022 (Acceptance Rate $\approx 15\%$)
- [51] Finding a Concise, Precise, and Exhaustive Set of Near Bi-Cliques in Dynamic Graphs
Hyeonjeong Shin, Taehyung Kwon, Neil Shah, [Kijung Shin](#)
ACM WSDM 2022 (Acceptance Rate $\approx 20\%$)

- [52] Directed Network Embedding with Virtual Negative Edges
Hyunsik Yoo*, Yeon-Chang Lee*, [Kijung Shin](#), and Sang-Wook Kim
ACM WSDM 2022 (Acceptance Rate \approx 20%)
- [53] Growth Patterns and Models of Real-world Hypergraphs
Jihoon Ko*, Yunbum Kook*, and [Kijung Shin](#)
Knowledge and Information Systems (SCI(E) Journal, 2022)
Invited as One of the Best-Ranked Papers of ICDM 2020
- [54] Real-Time Anomaly Detection in Edge Streams
Siddharth Bhatia, Rui Liu, Bryan Hooi, Minji Yoon, [Kijung Shin](#), and Christos Faloutsos
ACM TKDD (SCI(E) Journal, 2022)
- [55] Effective Training Strategies for Deep-Learning-Based Precipitation Nowcasting and Estimation
Jihoon Ko*, Kyuhan Lee*, Hyunjin Hwang*, Seok-Geun Oh, Seok-Woo Son, and [Kijung Shin](#)
Computers and Geosciences (SCI(E) Journal, 2022)
- [56] Simple Epidemic Models with Segmentation Can Be Better than Complex Ones
Geon Lee, Se-eun Yoon, and [Kijung Shin](#)
PLOS ONE (SCI(E) Journal, 2022)
- [57] Efficient Neural Network Approximation of Robust PCA for Automated Analysis of Calcium Imaging Data
Seungjae Han, Eun-Seo Cho, Inkyu Park, [Kijung Shin](#), and Young-Gyu Yoon
MICCAI 2021 (Acceptance Rate \approx 33%)
- [58] THyMe+: Temporal Hypergraph Motifs and Fast Algorithms for Exact Counting
Geon Lee and [Kijung Shin](#)
IEEE ICDM 2021 (Long Presentation Acceptance Rate \approx 10%)
Selected as One of the Best-Ranked Papers of ICDM 2021 for Fast-track Journal Invitation
- [59] SliceNStitch: Continuous CP Decomposition of Sparse Tensor Streams
Taehyung Kwon*, Inkyu Park*, Dongjin Lee, and [Kijung Shin](#)
IEEE ICDE 2021 (Acceptance Rate \approx 28%)
- [60] Robust Factorization of Real-world Tensor Streams with Patterns, Missing Values, and Outliers
Dongjin Lee and [Kijung Shin](#)
IEEE ICDE 2021 (Acceptance Rate \approx 28%)
- [61] How Do Hyperedges Overlap in Real-World Hypergraphs? - Patterns, Measures, and Generators
Geon Lee*, Minyoung Choe*, and [Kijung Shin](#)
WWW 2021 (Acceptance Rate \approx 21%)
- [62] PREMERE: Meta-Reweighting via Self-Ensembling for Point-of-Interest Recommendation
Minseok Kim, Hwanjun Song, Doyoung Kim, [Kijung Shin](#), and Jae-Gil Lee
AAAI 2021 (Acceptance Rate \approx 21%)
- [63] DPGS: Degree-Preserving Graph Summarization
Houquan Zhou, Shenghua Liu, Kyuhan Lee, [Kijung Shin](#), Huawei Shen, and Xueqi Cheng
SDM 2021 (Acceptance Rate \approx 21%)
- [64] CoCoS: Fast and Accurate Distributed Triangle Counting in Graph Streams
[Kijung Shin](#), Euiwoong Lee, Jinoh Oh, Mohammad Hammoud, and Christos Faloutsos
ACM TKDD (SCI(E) Journal, 2021)
- [65] MONSTOR: An Inductive Approach for Estimating and Maximizing Influence over Unseen Networks
Jihoon Ko, Kyuhan Lee, [Kijung Shin](#), and Noseong Park
ASONAM 2020 (Acceptance Rate \approx 18%)
Selected for Fast-track Journal Invitation

- [66] Evolution of Real-world Hypergraphs: Patterns and Models without Oracles
Yunbum Kook, Jihoon Ko, and [Kijung Shin](#)
IEEE ICDM 2020 (Long Presentation Acceptance Rate $\approx 10\%$)
Selected as One of the Best-Ranked Papers of ICDM 2020 for Fast-track Journal Invitation
- [67] Hypergraph Motifs: Concepts, Algorithms, and Discoveries
Geon Lee, Jihoon Ko, and [Kijung Shin](#)
VLDB 2020 (Acceptance Rate $\approx 25\%$)
- [68] Incremental Lossless Graph Summarization
Jihoon Ko*, Yunbum Kook*, and [Kijung Shin](#)
ACM KDD 2020 (Acceptance Rate $\approx 17\%$)
- [69] SSumM: Sparse Summarization of Massive Graphs
Kyuhan Lee*, Hyeonsoo Jo*, Jihoon Ko, Sungsu Lim, and [Kijung Shin](#)
ACM KDD 2020 (Acceptance Rate $\approx 17\%$)
- [70] Structural Patterns and Generative Models of Real-world Hypergraphs
Manh Tuan Do, Se-eun Yoon, Bryan Hooi, and [Kijung Shin](#)
ACM KDD 2020 (Acceptance Rate $\approx 17\%$)
- [71] How Much and When Do We Need Higher-order Information in Hypergraphs?
A Case Study on Hyperedge Prediction
Se-eun Yoon, Hyungseok Song, [Kijung Shin](#), and Yung Yi
WWW 2020 (Short Paper) (Acceptance Rate $\approx 25\%$)
- [72] TellTail: Fast Scoring and Detection of Dense Subgraphs
Bryan Hooi, [Kijung Shin](#), Hemank Lamba, and Christos Faloutsos
AAAI 2020 (Acceptance Rate $\approx 21\%$)
- [73] MIDAS: Microcluster-Based Detector of Anomalies in Edge Streams
Siddharth Bhatia, Bryan Hooi, Minji Yoon, [Kijung Shin](#), and Christos Faloutsos
AAAI 2020 (Acceptance Rate $\approx 21\%$)
- [74] Temporal Locality-Aware Sampling for Accurate Triangle Counting in Real Graph Streams
Dongjin Lee, [Kijung Shin](#), and Christos Faloutsos
The VLDB Journal (SCI(E) Journal, 2020)
- [75] Fast and Memory-Efficient Algorithms for High-Order Tucker Decomposition
Jiyuan Zhang, Jino Oh, [Kijung Shin](#), Evangelos E. Papalexakis,
Christos Faloutsos, and Hwanjo Yu
Knowledge and Information Systems (SCI(E) Journal, 2020)
- [76] Fast, Accurate and Provable Triangle Counting in Fully Dynamic Graph Streams
[Kijung Shin](#), Sejoon Oh, Jisu Kim, Bryan Hooi, and Christos Faloutsos
ACM TKDD (SCI(E) Journal, 2020)
- [77] Fast and Accurate Anomaly Detection in Dynamic Graphs with a Two-Pronged Approach
Minji Yoon, Bryan Hooi, [Kijung Shin](#), and Christos Faloutsos
ACM KDD 2019 (Acceptance Rate $\approx 14\%$)
- [78] SWeG: Lossless and Lossy Summarization of Web-Scale Graphs
[Kijung Shin](#), Amol Ghoting, Myunghwan Kim and Hema Raghavan
WWW 2019 (Acceptance Rate $\approx 18\%$)
- [79] SMF: Drift Aware Matrix Factorization with Seasonal Patterns
Bryan Hooi, [Kijung Shin](#), Shenghua Liu, and Christos Faloutsos
SDM 2019 (Acceptance Rate $\approx 23\%$)

- [80] Think Before You Discard: Accurate Triangle Counting in Graph Streams with Deletions
Kijung Shin, Jisu Kim, Bryan Hooi, and Christos Faloutsos
PKDD 2018 (Acceptance Rate \approx 26%)
- [81] ONE-M: Modeling the Co-evolution of Opinions and Network Connections
Aastha Nigam, Kijung Shin, Ashwin Bahulkar, Bryan Hooi, David Hachen,
Boleslaw Szymanski, Christos Faloutsos, and Nitesh Chawla
PKDD 2018 (Acceptance Rate \approx 26%)
- [82] Discovering Progression Stages in Trillion-Scale Behavior Logs
Kijung Shin, Mahdi Shafiei, Myunghwan Kim, Aastha Jain, and Hema Raghavan
WWW 2018 (Industry Track)
- [83] Tri-Fly: Distributed Estimation of Global and Local Triangle Counts in Graph Streams
Kijung Shin, Mohammad Hammoud, Euiwoong Lee, Jinoh Oh, and Christos Faloutsos
PAKDD 2018 (Acceptance Rate \approx 18%)
- [84] Fast, Accurate and Flexible Algorithms for Dense Subtensor Mining
Kijung Shin, Bryan Hooi, and Christos Faloutsos
ACM TKDD (SCI(E) Journal, 2018)
- [85] Patterns and Anomalies in k-Cores of Real-world Graphs with Applications
Kijung Shin, Tina Eliassi-Rad, and Christos Faloutsos
Knowledge and Information Systems (SCI(E) Journal, 2018)
Invited as One of the Best-Ranked Papers of ICDM 2016
- [86] WRS: Waiting Room Sampling for Accurate Triangle Counting in Real Graph Streams
Kijung Shin
IEEE ICDM 2017 (Acceptance Rate \approx 20%)
- [87] ZooRank: Ranking Suspicious Entities in Time-Evolving Tensors
Hemank Lamba, Bryan Hooi, Kijung Shin, Christos Faloutsos, and Jürgen Pfeffer
PKDD 2017 (Acceptance Rate \approx 27%)
- [88] DenseAlert: Incremental Dense-Subtensor Detection in Tensor Streams
Kijung Shin, Bryan Hooi, Jisu Kim, and Christos Faloutsos
ACM KDD 2017 (Acceptance Rate \approx 18%)
- [89] Why You Should Charge Your Friends for Borrowing Your Stuff
Kijung Shin, Euiwoong Lee, Dhivya Eswaran, and Ariel D. Procaccia
IJCAI 2017 (Acceptance Rate \approx 26%)
Featured in New Scientist
- [90] D-Cube: Dense-Block Detection in Terabyte-Scale Tensors
Kijung Shin, Bryan Hooi, Jisu Kim, and Christos Faloutsos
ACM WSDM 2017 (Long Presentation Acceptance Rate \approx 5%)
Long Oral Presentation
- [91] S-HOT: Scalable High-Order Tucker Decomposition
Jinoh Oh, Kijung Shin, Evangelos E. Papalexakis, Christos Faloutsos, and Hwanjo Yu
ACM WSDM 2017 (Acceptance Rate \approx 16%)
- [92] Graph-Based Fraud Detection in the Face of Camouflage
Bryan Hooi, Kijung Shin, Hyun Ah Song, Alex Beutel, Neil Shah, and Christos Faloutsos
ACM TKDD (SCI(E) Journal, 2017)
Invited as One of the Best-Ranked Papers of KDD 2016

Minyoung Choe, KAIST AI (MS/PhD Integrated)	Spring 2021 -
Hyunjin Hwang, KAIST AI (MS/PhD Integrated)	Spring 2022 -
Taehyung Kwon, KAIST AI	Spring 2022 -
Fanchen Bu, KAIST EE	Spring 2022 -
Shinhwan Kang, KAIST AI	Spring 2023 -
Soo Yong Lee, KAIST AI	Fall 2023 -
Sunwoo Kim, KAIST AI	Spring 2024 -
Heechan Moon, KAIST AI	Fall 2024 -
Langzhang Liang, KAIST AI	Fall 2024 -

Master Students

Se-eun Yoon (Advisor: Prof. Yung Yi), KAIST EE	Graduated in Spring 2020
Inkyu Park, KAIST AI	Graduated in Spring 2021
Hyeonju Lee, KAIST AI	Graduated in Spring 2021
Hyunjin Hwang, KAIST EE	Graduated in Fall 2021
Taehyung Kwon, KAIST AI	Graduated in Fall 2021
Shinhwan Kang, KAIST AI	Graduated in Fall 2022
Hyeonjeong Shin, KAIST AI	Graduated in Fall 2022
Deukryeol Yoon, KAIST AI	Graduated in Fall 2022
Juwon Kim, KAIST AI	Graduated in Spring 2023
Seungwoo Lee, KAIST EE	Graduated in Spring 2023
Soo Yong Lee, KAIST AI	Graduated in Spring 2023
Taehyung Yu, KAIST AI	Graduated in Spring 2023
Dongyeong Hwang, KAIST AI	Graduated in Fall 2023
Hyunju Kim, KAIST AI	Graduated in Fall 2023
Sunwoo Kim, KAIST AI	Graduated in Fall 2023
Heechan Moon, KAIST AI	Graduated in Spring 2024
Jaewan Chun, KAIST AI	Spring 2023 -
Sojeong Kim, KAIST AI	Spring 2023 -
Jongha Lee, KAIST AI	Spring 2023 -
Chunji Cui, KAIST AI	Fall 2023 -
Yuyeong Kim, KAIST AI	Fall 2023 -
Seokbeom Yoon, KAIST AI	Fall 2023 -
Kyungho Kim, KAIST AI	Fall 2024 -
Dongwon Choi, KAIST AI	Fall 2024 -
Juyeon Kim, KAIST AI	Fall 2024 -

SERVICES

Conference Chair

IEEE DSAA (Publicity Co-chair)	2024
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Conference Senior Program Committee (or Area Chair)

ACM KDD	2023 - 2025
NeurIPS (Datasets and Benchmark Track)	2023 - 2024

Conference Program Committee

ACM KDD	2019 - 2022
WWW	2019 - 2024
IEEE ICDM	2019 - 2024
ACM CIKM	2021 - 2024
ACM WSDM	2022 - 2025
SDM	2022 - 2023
PAKDD	2023 - 2024
ASONAM	2023

Workshop Organizer

Workshop on Mining and Learning Real-world Dynamics via High-order Networks 2024

Journal Editor

Big Data Research (Associate Editor)

2022 - Present