

Kento Sato

Team Leader, High Performance Big
Data Research Team

RIKEN Center for Computational Science (RIKEN R-CCS)
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January 30, 2025

Titles

- Team Leader, High Performance Big Data Research Team, RIKEN R-CCS
- Unit Leader, Data Management Platform Development Unit, RIKEN R-CCS
- Visiting Associate Professor, Graduate School of Information Sciences, Tohoku University
- Visiting Associate Professor, Graduate School of System Informatics, Kobe University Graduate School

Short Bio

Kento Sato is a team leader of High Performance Big Data Research Team in the Center for Computational Science at RIKEN (RIKEN R-CCS). His research area is distributed systems and parallel computing, particularly in High Performance Computing (HPC). Major focuses of his research are artificial intelligence, machine learning and deep learning in HPC, application reproducibility (MPI reproducibility, and Validation), scalable fault tolerance (Scalable checkpoint/restart, Fault tolerant MPI, Resilient system design), and I/O optimization (NVRAM, Burst buffer, and Big data), co-designing and cloud computing. He received his Ph.D. in the Dept. of Mathematical & Computing Sciences at Tokyo Tech in 2014, his M.S. in the Dept. of Mathematical & Computing Sciences at Tokyo Tech in 2010, and his B.S. in the Dept. of Information Science at Tokyo Tech in 2008.

東京工業大学大学院 数理計算科学専攻卒業（理学博士、2014 年）。東京工業大学学術国際情報基盤センターおよび米国ローレンスリバモア国立研究所ポスドク（2014 年）。その後、米国ローレンスリバモア国立研究所研究員（2017 年）を経て、2018 年より現職。神戸大学大学院システム情報学研究科 客員准教授を兼務。専門は高性能計算機システム。これまでクラウド、I/O・ストレージ、耐障害技術、テスト・デバッグ、人工知能・ビッグデータ処理に関する性能評価・解析、最適化およびシステムソフトウェアの研究開発に携わる。

EDUCATION

- Mar., 2014 **Ph.D. in Science**, *Department of Mathematical and Computing*, Tokyo Institute of Technology, Tokyo, Japan.
- Mar., 2010 **Master of Science**, *Department of Mathematical and Computing*, Tokyo Institute of Technology, Tokyo, Japan.
- Mar., 2008 **Bachelor of Science**, *Department of Information Science*, Tokyo Institute of Technology, Tokyo, Japan.
- Graduated top of the department

WORK EXPERIENCE

- April, 2023 - **Visiting Associate Professor**, *Graduate School of Information Sciences*, Tohoku University, *Sendai, Japan*.
 present
- July, 2019 - **Visiting Associate Professor**, *Graduate School of System Informatics*, Kobe University Graduate School, *Kobe, Japan*.
 present
- Nov., 2018 - **Team Leader**, *High Performance Big Data Research Team*, RIKEN Center for Computational Science (RIKEN R-CCS), *Kobe, Japan*.
 present
- Oct., 2018 **Adjunct Team Leader**, *High Performance Big Data Research Team*, RIKEN Center for Computational Science (RIKEN R-CCS), *Kobe, Japan*.
- May, 2018 **Invited Senior Researcher (Category 5 Employee)**, *RWBC-OIL*, National Institute of Advanced Industrial Science and Technology (AIST), *Tokyo, Japan*.
- Nov., 2017 - **Invited Senior Researcher (Category 5 Employee)**, *RWBC-OIL*, National Institute of Advanced Industrial Science and Technology (AIST), *Tokyo, Japan*.
 Jan., 2018
- Sep., 2017 - **Computer Scientist**, *Center for Applied Scientific Computing*, Lawrence Livermore National Laboratory, *CA, USA*.
 Oct., 2018
- Sep., 2014 - **Postdoctoral Researcher**, *Center for Applied Scientific Computing*, Lawrence Livermore National Laboratory, *CA, USA*.
 Sep., 2017
- PRUNER project (Providing Reproducibility on Ubiquitously Non-deterministic Environments and Runs)
 - Extreme Scale Resilience project
- Apr., 2014 - **Postdoctoral Researcher**, *Global Scientific Information and Computing Center*, Tokyo Institute of Technology, *Tokyo, Japan*.
 Aug., 2014
- Extreme Scale Resilience project
- Apr., 2012 - **JSPS research fellow, DC2**, JSPS (Japan Society for the Promotion of Science), *Tokyo, Japan*.
 Mar., 2014
- I/O optimization in cluster, cluster and grid environments
- July, 2013 - **Research Intern**, *Center for Applied Scientific Computing*, Lawrence Livermore National Laboratory, *CA, USA*.
 Oct., 2013
- Developed a Fault tolerant Messaging Interface(FMI);
 - Developed an I/O interface(IBIO) and a resiliency model for burst buffer
- Aug., 2012 - **Research Intern**, *Center for Applied Scientific Computing*, Lawrence Livermore National Laboratory, *CA, USA*.
 Nov., 2012
- Developed a Fault tolerant Messaging Interface(FMI)
- Aug., 2011 - **Research Intern**, *Center for Applied Scientific Computing*, Lawrence Livermore National Laboratory, *CA, USA*.
 Nov., 2011
- Developed an asynchronous checkpointing system
- Oct., 2010 - **Research Staff**, *Global Scientific Information and Computing Center*, Tokyo Institute of Technology, *Tokyo, Japan*.
 Mar., 2011
- I/O optimization in grid environments
- Apr., 2010 - **Associate**, *Equity Operation*, J.P.Morgan Securities Japan Co., Ltd., *Tokyo, Japan*.
 Aug., 2010
- Trading system monitoring
 - FIX (Financial Information Exchange) system log analysis
 - Release of algorithm trading programs
 - In-house user service

Oct., 2006 - **Business Intern, Equity Research**, Deutsche Securities Inc., Tokyo, Japan.
Jan., 2008 ○ Developed a financial chart viewer library and a web interface to SQL databases

RESEARCH FUNDING

- FY2024- PI, “階層型ストレージを活用した基盤モデル学習の I/O の高速化 (Optimizing
FY2026 I/O Performance for Foundation Model Training using Hierarchical Storage)”,
4,680,000-yen/3-year
24K14974, Grant-in-Aid for Scientific Research (C), KAKEN,
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-24K14974/>
- FY2021- PI, “Society5.0 を支える大規模研究施設連携によるビッグデータ収集・解析・利
FY2024 活用基盤の研究開発”, 30,000,000-yen/4-year
研究教育拠点 (COE) 形成推進事業研究助成金 (Hyogo/Kobe-COE Fund)
- FY2020- PI, “並列 I/O 最適化による大規模深層学習の高速化に関する研究 (Optimization
FY2021 of parallel I/O to accelerate large-scale deep neural network training)”, 4,160,000-
yen/2-year
20K19811, Grant-in-Aid for Early-Career Scientists, KAKEN
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-20K19811/>
- FY2020 Co-PI, “格子暗号の安全性を支える数学問題の大規模並列化による解読システムの
開発 (Development of Large-scale Decryption System for Reliability of Lattice-based
Cryptography)”, 1,000,000-yen/1-year
理研-九大科学技術ハブ共同研究プログラム (RIKEN-Kyushu Univ. Science & Tech-
nologies Hub Col laborative Research Program)
- FY2011-2015 Co-I, “Fault Tolerant Infrastructure Toward Billion of Parallelization and Exa-scale
Supercomputer”, 213,720,000-yen/5-year
Grant-in-Aid for Scientific Research (S), KAKEN
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-23220003/>
- FY2012-2013 PI, “広域環境における大規模データ処理の最適化 (Optimization of Big Data Pro-
cessing in Geographically Distributed Environments)”, \$17,000/2-year
Grant-in-Aid for JSPS Fellows, KAKEN
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-12J08253/>

PROFESSIONAL ACTIVITIES

- 2025 ACM/IEEE SC25, *Posters Vice Chair*
- 2025 ACM/IEEE SC25, *New Volunteers Reviewer*
- 2025 IEEE Cluster 2025 (the IEEE International Conference on Cluster Computing),
Technical Program Committee (in Data, Storage and Visualization)
- 2025 ACM HPDC 2025 workshop: FlexScience 2025 (15th Workshop on AI and Scientific
Computing at Scale using Flexible Computing Infrastructures), *Organizer*
- 2025 SSDBM 2025 (The 37th International Conference on Scalable Scientific Data Man-
agement), *Program Committee*

- 2025 ISC2025 Workshop: EESP 2025 (Energy Efficiency with Sustainable Performance: Techniques, Tools, and Best Practices), *Program Committee*
- 2025 ISC2025, *Research Poster Committee*
- 2024 IEEE IPDPS 2025 workshop: ESSA 2025 (The 6th International Workshop on Extreme-Scale Storage and Analysis), *Steering Committee*
- 2025 IEEE IPDPS 2025, *Technical Program Committee* in Machine Learning and Artificial Intelligence Track
- 2025 IEEE CCGrid 2025, *Track Chair (Track 3: Machine Learning (ML) for Systems and Systems for ML: abstraction, architecture, design and implementation supporting machine learning and artificial intelligence applications)*
- 2025 HPC Asia 2025, *Program Committee*
- 2024 ACM/IEEE SC24 workshop: DRBSD 2024 (The 10th International Workshop on Data Analysis and Reduction for Big Scientific Data), *Organizing Committee*
- 2024 ACM/IEEE SC24 workshop: DRBSD 2024 (The 10th International Workshop on Data Analysis and Reduction for Big Scientific Data), *Program Committee*
- 2024 ACM/IEEE SC24 workshop: AI4S 2024 (The 5th Workshop on Artificial Intelligence and Machine Learning for Scientific Applications), *Program Committee*
- 2024 ACM/IEEE SC24, *BoF Committee*
- 2023 ACM/IEEE SC24 workshop: PDSW2024 (The 9th International Parallel Data Systems Workshop), *Steering Committee*
- 2024 EuroMPI/Australia 2024, *Program Committee*
- 2024 IEEE Cluster 2024 Workshop: REX-IO'24 (the 4th Workshop on Re-envisioning Extreme-Scale I/O for Emerging Hybrid HPC Workloads), *Program Committee*
- 2024 IEEE Cluster 2024 (the IEEE International Conference on Cluster Computing), *Technical Program Committee (in Data, Storage and Visualization)*
- 2024 IEEE eScience 2024, *program committee*
- 2024 ICPP 2024 (The 53rd the International Conference on Parallel Processing), *Program Committee Member*
- 2024 xSIG (The Cross-Disciplinary Workshop on Computing Systems, Infrastructures, and Programming), *Program Committee Member*
- 2024 一般財団法人 高度情報科学技術研究機構 (RIST), 学際大規模情報基盤共同利用・共同研究拠点 (JHPCN), 学際共同研究 WG 委員
- 2024 一般財団法人 高度情報科学技術研究機構 (RIST), 学際大規模情報基盤共同利用・共同研究拠点 (JHPCN), JHPCN 課題審査委員
- 2024 国立研究開発法人産業技術総合研究所 ABCI, 大規模生成 AI 研究開発支援プログラム, 審査員
- 2024 ACM HPDC 2024 workshop: FlexScience 2024 (14th Workshop on AI and Scientific Computing at Scale using Flexible Computing Infrastructures), *Organizer*
- 2024 IEEE IPDPS 2024, *Technical Program Committee* in Measurements, Modeling, and Experiments Track

- 2024 IEEE IPDPS 2024 workshop: ESSA 2024 (The 5th International Workshop on Extreme-Scale Storage and Analysis), *Steering Committee*
- 2024 ISC2024, *Research Poster Committee*
- 2024 IEEE/ACM CCGrid 2024, *Technical Program Committee*
- 2024 JHPCN 共同利用共同研究拠点, 課題審査委員 (データ科学・データ利活用分野)
- 2024 HPC Asia 2024, *Program Committee*
- 2024 IEEE ICPADS 2023, *Technical Program Committee*
- 2024 公益財団法人ひょうご科学技術協会, 評議員
- 2023 ACM/IEEE SC23 workshop: AI4S (The 4th Workshop on Artificial Intelligence and Machine Learning for Scientific Applications), *Program Committee*
- 2023 ACM/IEEE SC23 workshop: AI4DEV (AI Assisted Software Development for HPC), *Program Committee*
- 2023 ACM/IEEE SC23 workshop: SuperCheck-SC23 (The fourth International Symposium on Checkpointing for Supercomputing), *Program Committee*
- 2023 ACM/IEEE SC23 workshop: PDSW2023 (The 8th International Parallel Data Systems Workshop), *Steering Committee*
- 2023 IEEE Cluster 2023 (the IEEE International Conference on Cluster Computing), *Track Co-Chair (in Data, Storage and Visualization)*
- 2023 IEEE Cluster 2023 Workshop: REX-IO'23 (the 3rd Workshop on Re-envisioning Extreme-Scale I/O for Emerging Hybrid HPC Workloads), *Program Committee*
- 2023 IEEE Cluster 2023, *Poster Program Committee*
- 2023 EuroMPI 2023, *Technical Program Committee*
- 2023 ICPP 2023 (The 52nd the International Conference on Parallel Processing), *Program Committee Member*
- 2023 ACM ICS2023 (International Conference on Supercomputing), *Publicity Chair*
- 2023 ACM HPDC 2023 workshop: FlexScience 2023 (13th Workshop on AI and Scientific Computing at Scale using Flexible Computing Infrastructures), *Organizer*
- 2023 ISC2023, *Research Poster Committee*
- 2023 ISC2023, *Research Paper Committee (Performance Modeling, Evaluation, and Analysis)*
- 2023 ISC2023 workshop: WOCC'23 *Program Committee*
- 2023 IEEE IPDPS 2023 workshop: ESSA 2023 (The 4th International Workshop on Extreme-Scale Storage and Analysis), *General Co-Chair*
- 2023 IEEE IPDPS 2023 workshop: ESSA 2023 (The 4th International Workshop on Extreme-Scale Storage and Analysis), *Steering Committee*
- 2023 IEEE IPDPS 2023, *Technical Program Committee* in the Experiments track
- 2023 ACM CF23: International Conference on Computing Frontiers 2023, *Steering Committee*
- 2023 公益財団法人ひょうご科学技術協会, 評議員
- 2022 HiPC 2022, *Technical Program Committee*

- 2022 ACM/IEEE SC22, *Track Vice-Chair in Programming Frameworks and System Software*
- 2022 ACM/IEEE SC22 workshop: PDSW2022 (The 7th International Parallel Data Systems Workshop), *General Chair*
- 2022 ACM/IEEE SC22 workshop: SuperCheck-SC22 (The Third International Symposium on Checkpointing for Supercomputing), *Program Committee*
- 2022 ACM/IEEE SC22 workshop: SuperCompCloud (The 6th Workshop on Interoperability of Supercomputing and Cloud Technologies), *Technical Program Committee*
- 2022 EuroMPI/USA 2022, *Technical Program Committee*
- 2022 IEEE Cluster 2022, *Proceedings Chair*
- 2022 IEEE Cluster 2022, *Technical Program Committee*
- 2022 Special Issue on "When Big Data, Data Science and AI meet HPC: Challenges and Opportunities", Cluster Computing (The Journal of Networks, Software Tools and Applications), *Guest Editor*
- 2022 xSIG (The 6th cross-disciplinary Workshop on Computing Systems, Infrastructures, and Programming), *Program Committee Member*
- 2022 ACM HPDC 2022 (The 31th International Symposium on High-Performance Parallel and Distributed Computing), *Publicity Chair*
- 2022 ACM HPDC 2022 (The 31th International Symposium on High-Performance Parallel and Distributed Computing), *Poster Committee Member*
- 2022 ACM HPDC 2022 workshop: FlexScience (formerly ScienceCloud) 2022 (12th Workshop on AI and Scientific Computing at Scale using Flexible Computing Infrastructures), *Organizer*
- 2022 ACM SYSTOR 2022 (The ACM International Systems and Storage Conference), *Technical Program Committee*
- 2022 IEEE IPDPS 2022 workshop: ESSA 2022 (The 3rd International Workshop on Extreme-Scale Storage and Analysis), *Program Co-Chair*
- 2022 IEEE IPDPS 2022 workshop: ESSA 2022 (The 3rd International Workshop on Extreme-Scale Storage and Analysis), *Steering Committee*
- 2022 ISC2022 HPC in Asia, *General Chair*
- 2022 ACM CF22: International Conference on Computing Frontiers 2022, *Steering Committee*
- 2022 HPC Asia 2022, *Program Co-Chair*
- 2021 ACM/IEEE SC21, *Workshop Committee*
- 2021 ACM/IEEE SC21 workshop: The 6th International Parallel Data Systems Workshop (PDSW2021), *Program Co-Chair*
- 2021 ACM/IEEE SC21 workshop: SuperCheck (Second International Symposium on Checkpointing for Supercomputing), *Program Committee*
- 2021 IEEE eScience 2021, *Tutorial co-Chair*
- 2021 IEEE Cluster 2021, *Technical Program Committee*

- 2021 EuroMPI2021, *Technical Program Committee*
- 2021 xSIG (The 5th cross-disciplinary Workshop on Computing Systems, Infrastructures, and Programming), *Program Committee Member*
- 2021 BDPS2021: International Workshop on BigData Processing Systems, *Program Committee*
- 2021 ISC2021: HPC in Asia, *Deputy Chair*
- 2021 ISC2021, *Poster Committee*
- 2021 ISC2021 workshop: SuperCompCloud (The 4th Workshop on Interoperability of Supercomputing and Cloud Technologies), *Technical Program Committee*
- 2021 ACM HPDC 2021 (The 30th International Symposium on High-Performance Parallel and Distributed Computing), *Publicity Chair*
- 2021 ACM HPDC 2021 Workshop: ScienceCloud 2021 (The 11th Workshop on Scientific Cloud Computing), *Organizing co-chair*
- 2021 ACM ICS'21 (International Conference on Supercomputing), *Program Committee Member*
- 2021 IEEE IPDPS 2021, *Technical Program Committee*
- 2021 HPS 2021 (The IEEE International Workshop on High-Performance Storage) in conjunction with IEEE IPDPS 2020 (The 35th IEEE International Parallel and Distributed Processing Symposium), *Program Committee*
- 2021 HPS 2021 (The IEEE International Workshop on High-Performance Storage) in conjunction with IEEE IPDPS 2020 (The 35th IEEE International Parallel and Distributed Processing Symposium), *Steering Committee*
- 2021 ICPP 2021 (The 50th the International Conference on Parallel Processing), *Program Committee Member*
- 2021 ACM CF21 (ACM International Conference on Computing Frontiers 2021), *Industrial Sponsorship Co-Chair*
- 2021 ACM CF21 (ACM International Conference on Computing Frontiers 2021), *Steering Committee*
- 2021 IEEE Transactions on Parallel and Distributed Systems (TPDS) 's special section on Innovative R&D toward the Exascale Era, *Committee Member*
- 2021 Journal of Signal Processing Systems (1613), *Journal Editor*
- 2021 IEEE Transactions on Parallel and Distributed System (TPDS) 's special section on "Parallel and Distributed Computing Techniques for AI, ML and DL", *Program Committee Member*
- 2021 The 3rd R-CCS International Symposium, *General Co-Chair*
- 2021 SDRJ (The System Device Roadmap Committee of Japan), *Sub-leader in application benchmarking WG*
- 2020 ACM/IEEE SC20 workshop: The 5th International Parallel Data Systems Workshop (PDSW2020), *Program Vice Chair*
- 2020 ACM/IEEE SC20 workshop: SuperCompCloud (The 3rd Workshop on Interoperability of Supercomputing and Cloud Technologies), *Technical Program Committee*

- 2020 EuroMPI/USA'20, *Technical Program Committee*
- 2020 IEEE Cluster 2020, *Technical Program Committee*
- 2020 IEEE Cluster 2020, *Poster Chair*
- 2020 ACM HPDC 2020 (The 29th International Symposium on High-Performance Parallel and Distributed Computing), *Publicity Co-Chair*
- 2020 ACM HPDC 2020 Workshop: ScienceCloud2020 (The 10th Workshop on Scientific Cloud Computing), *Organizing Chair*, [CANCELED]
- 2020 HPC in Asia/ISC2020, *Deputy Chair*
- 2020 ISC2020 Workshop: SuperCompCloud (The 2nd Workshop on Interoperability of Supercomputing and Cloud Technologies), *Technical Program Committee*, [CANCELED]
- 2020 HPS 2020 (The IEEE International Workshop on High-Performance Storage) in conjunction with IEEE IPDPS 2020 (The 34th IEEE International Parallel and Distributed Processing Symposium), *Organizing Committee*
- 2020 HPS 2020 (The IEEE International Workshop on High-Performance Storage) in conjunction with IEEE IPDPS 2020 (The 34th IEEE International Parallel and Distributed Processing Symposium), *Technical Program Committee*
- 2020 ACM International Conference on Computing Frontiers (CF), *Publicity Co-Chair*
- 2020 The 2nd R-CCS International Symposium, *Technical Program Committee*
- 2020 HPC Asia 2020 (International Conference on High Performance Computing in Asia-Pacific Region), *Track Chair (in Programming Models and Systems Software)*
- 2019 ACM/IEEE SC19, *BoF Committee*
- 2019 ICPP 2019 (International Conference on Parallel Processing 2019), *Technical Program Committee*
- 2019 IEEE Cluster 2019, *Poster Committee*
- 2019 ACM HPDC 2019 (The 28th International Symposium on High-Performance Parallel and Distributed Computing), *Travel Grant Committee*
- 2019 PDML19 (The 1st Workshop on Parallel and Distributed Machine Learning 2019) in conjunction with ICPP 2019 (International Conference on Parallel Processing 2019), *Organizer*
- 2019 ICS 2019 (International Conference on Supercomputing), *Technical Program Committee*
- 2019 ACM International Conference on Computing Frontiers (CF), *Program Co-Chairs*
- 2019 R-WoNC'19 (Riken International Workshop on Neuromorphic Computing), *Publicity Co-Chairs*
- 2019 HPC Asia 2019 (International Conference on High Performance Computing in Asia-Pacific Region), *Technical Program Committee*
- 2018 ACM/IEEE SC18, *Posters Committee*
- 2018 ACM/IEEE SC18 workshop: The joint International Workshop on Parallel Data Storage & Data Intensive Scalable Computing Systems (PDSW-DISCS), *Program Committee*

- 2018 IEEE Cluster 2018, *Poster Committee*
- 2018 IEEE Transactions on Parallel and Distributed Systems (TPDS-2018-02-0076), *Reviewer*
- 2018 HPC Asia (International Conference on High Performance Computing in Asia-Pacific Region), *Technical Program Committee*
- 2018 HPC Asia (International Conference on High Performance Computing in Asia-Pacific Region), *Technical Poster Committee*
- 2017 ACM/IEEE SC17, *Posters Committee*
- 2017 ACM/IEEE SC17, *BoF Committee*
- 2017 ACM/IEEE SC17 workshop: The joint International Workshop on Parallel Data Storage & Data Intensive Scalable Computing Systems (PDSW-DISCS), *Program Committee*
- 2017 ACM/IEEE SC17 workshop: The first International Workshop on Software Correctness for HPC Applications (Correctnes2017), *Program Committee*
- 2017 IEEE Cluster, *Proceedings Chair*
- 2017 IEEE Cluster, *Technical Program Committee*
- 2017 IEEE Cluster workshop: The 3rd International Workshop on Fault Tolerant Systems (FTS2017), *Technical Program Committee*
- 2017 ICPP (International Conference on Parallel Processing), *Program Committee Members*
- 2016 IEEE Cluster 2016, *Technical Program Committee*
- 2016 IEEE/ACM CCGrid 2016, *Technical Program Committee*
- 2016 IEEE Cluster 2016 workshop: The 2nd International Workshop on Fault Tolerant Systems (FTS2016), *Technical Program Committee*
- 2015 IEEE Cluster, *Technical Program Committee*
- 2015 IEEE Cluster workshop: The 1st International Workshop on Fault Tolerant Systems (FTS2015), *Technical Program Committee*
- 2014 IEEE Transactions on Parallel and Distributed Systems (TPDS-2014-01-0069), *Reviewer*
- 2014 Concurrency and Computation: Practice and Experience (CPE-14-0353), *Reviewer*
- 2013 IEEE Transactions on Parallel and Distributed Systems (Journal), *Reviewer*
- 2013 Parallel Computing (Journal), *Reviewer*

AWARDS & SCHOLARSHIP

- Nov., 2024 Best Student Award Nomination in ACM/IEEE SC24, “Distributed Order Recording Techniques for Efficient Record-and-Replay of Multi-threaded Programs”
- Sep., 2024 Best Paper Nomination in IEEE Cluster 2024, “Distributed Order Recording Techniques for Efficient Record-and-Replay of Multi-threaded Programs”
- Nov., 2023 Editor’s Choice Collection in STEM-M, "Demonstration of efficient transfer learning in segmentation problem in synchrotron radiation X-ray CT data for epoxy resin"

- Dec., 2019 R&D 100 Award Winner on “SCR Framework”
- Jun., 2018 Best poster award in ISC18 on “HuronFS: Hierarchical, User-level and On-demand Burst Buffer File System”
- Nov., 2017 R&D 100 Award Finalist on “PRUNERS Toolset”
- Nov., 2017 Best poster finalist in SC17 on “A Simulation-Based Analysis on the Configuration of the Burst Buffer”
- Nov., 2017 Best poster finalist in SC17 on “Towards Capturing Nondeterminism Motifs in HPC Applications”
- Mar., 2017 Best poster award at the Computation Directorate March 2017 Postdoctoral Poster Symposium in LLNL
- Feb., 2015 Seiichi Tejima Doctoral Dissertation Award (平成26年度手島精一記念研究賞授与式 情報学関係部門) on “Design and Implementation for Optimal Checkpoint/Restart”
- Mar., 2014 IEEE/ACM CCGrid2014 Best Paper Award
- Apr., 2012 Japanese Society for the Promotion of Science (JSPS) scholarship for two years, (Research fund: \$10k/year)
- Mar., 2008 Graduated top of the Department of Information Science, Tokyo Institute of Technology, Awarded

PROFESSIONAL DUTIES in RIKEN

- FY2024 理化学研究所 計算環境部会の部会員
- FY2024 TRIP 事業本部 研究 DX 基盤開発チーム 所内無期選考 WG 委員
- FY2024 TL/UL メンター (TL1 名、UL2 名)
- FY2024 業績・雇用延長評価 WG 委員長
- FY2024 MI ビル活用検討 WG メンバー
- FY2024 新規スーパーコンピュータ (AI 開発専用計算機) 仕様策定検討委員会 委員長
- FY2024 理研学生相談担当
- FY2023 AC 委員 (AC Activity Report の取りまとめ)
- FY2023 MI ビル活用検討 WG メンバー
- FY2023 新規スーパーコンピュータ (AI 開発専用計算機) 仕様策定検討委員会 委員長
- FY2023 理研学生相談担当
- FY2022 量子コンピューティング推進体制検討 WG
- FY2022 AC Activity Report 取りまとめ役
- FY2022 AC 作業部会 部会員
- FY2022 補助金予算管理担当
- FY2022 The 5th R-CCS International Symposium, アドバイザ
- FY2022 基盤システム作業部会 部会員
- FY2022 研究データ部会 部会員
- FY2021 補助金予算管理担当
- FY2021 The 4th R-CCS International Symposium, アドバイザ

FY2021 持込サーバ室申請フロー検討部会 部会長
FY2021 基盤システム作業部会 部会長
FY2021 施設利用委員会 委員
FY2021 研究データ部会 部会員
FY2020 R-CCS Annual Report FY2019, Editor
FY2020 The 3rd R-CCS International Symposium, General Co-Chair
FY2020 持込サーバ室申請フロー検討部会 部会長
FY2020 基盤システム作業部会 部会長
FY2020 施設利用委員会 委員
FY2020 無期技術系一般職所内公募・選考一次選考 WG 委員
FY2020 県市 COE 将来計画検討会委員

TEACHING

FY2019-2024 神戸大学大学院 「大規模シミュレーション応用論」(集中講義)
FY2019-2024 神戸大学大学院 「大規模シミュレーション総論II」
FY2007 東京工業大学 「計算機システム」(TA)