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1 Technical biography

Dr. Zhou is currently an Assistant Professor at Department of Computer Science, Hong Kong Baptist University. She received her Ph.D. degree in Computer Science from Nanyang Technological University (NTU) in 2016. She was a postdoc researcher in INRIA Rennes (2016-2017) and a faculty member of Shenzhen University (2017-2023). Her research interests include parallel and distributed systems, cloud computing and high-performance computing. She has published more than 30 technical articles in refereed journals and conferences including SC, HPDC, ICS, ICDE, ICDCS, ICPP and TPDS. She has been actively serving the community by participating in the organizing/program committees for conferences including SC, HPDC, ICPP, Cluster and CIKM. She is also serving as an Associate Editor for IEEE Transactions on Parallel and Distributed Systems (TPDS) and an Editor for Future Generation Computer Systems (FGCS). She is the recipient of the **IEEE-CS TCHPC Early Career Researchers Award** and the **ACM SIGHPC China Rising Star Award** in 2021. She received the **Shenzhen Young Scientist Award** in 2023.

2 Education

Nanyang Technological University, Singapore

Ph.D., Computer Science, August 2011 - April 2016

Thesis: Simplified and Effective Resource Provisioning for Scientific Workflows in IaaS Clouds

Advisor: Prof. Bingsheng He

Beihang University, Beijing, China

M.E., Electronic Engineering, December 2011

Thesis: Research on the Model and Algorithms for Air Route Network Optimizations

Advisor: Prof. Xuejun Zhang

Beihang University, Beijing, China

B.E. with Honors, Electronic Engineering, Aug 2009

3 Professional Experience

Hong Kong Baptist University

Assistant Professor

Aug 2023 - present

Shenzhen University, China

Associate Professor

July 2022 - July 2023

Assistant Professor

Oct 2017 - Jun 2022

Inria, Rennes Bretagne Atlantique Research Centre, France

Post-doctoral Researcher

May 2016 - Aug 2017

Advisor: Dr. Shadi Ibrahim

4 Honors and Awards

- (I) **Shenzhen Young Scientist Award**, 2023.
- (II) **TPDS Best Paper Award**, 2022, for our paper entitled "An Efficient Parallel Secure Machine Learning Framework on GPUs".

- (III) **Outstanding Editors Award**, FGCS 2022.
- (IV) **IEEE-CS TCHPC Early Career Researchers Award**, 2021.
- (V) **ACM SIGHPC China Rising Star**, 2021.
- (VI) **Distinguished Young Faculty of Shenzhen University**, 2021.
- (VII) **Best Reviewers Award of CIKM**, 2021.
- (VIII) **Tencent “Rhino-bird” Open-Funded Young Researcher Award**, 2020.
- (IX) **IEEE Outstanding Leadership Award** as Program Co-Chair of the 5th IEEE International Conference on Smart Data (SmartData-2019), Atlanta, USA, 14-17 July 2019.
- (X) **Shenzhen Overseas High-Caliber Personnel (Level C)**, 2017.
- (XI) **Inria Postdoctoral Research Fellowship** (2016).
- (XII) **Spotlight Article of the issue** for paper “Transformation-Based Monetary Cost Optimizations for Workflows in the Cloud” published on IEEE Transactions on Cloud Computing, 2014.
- (XIII) **Best PhD Consortium Award** of IEEE CloudCom 2014 for the presentation: “Simplified Resource Provisioning for Workflows in IaaS Clouds”, Singapore, Dec. 2014.

5 Publications

Refereed Publications in Journals	11 (7 A* ¹ , 2 A , 2 JCR-Q1)
Refereed Publications in Book Chapters	1
Refereed Publications in Conference Proceedings	19 (3 A* , 11 A)
Refereed Publications in Conference without Proceedings	4
H-Index computed by Google Scholar Citations	15 (as of Aug 2023)
Total citations by Google Scholar Citations	632 (as of Aug 2023)

5.1 Refereed Journal Articles

(in reverse chronological order)

- [J11] *Privacy-preserving workflow scheduling in geo-distributed data centers.*
Yao Xiao, **Amelie Chi Zhou**, Xuan Yang and Bingsheng He. Future Gener. Comput. Syst. 130: 46-58 (FGCS 2022) (A)
- [J10] *FarSpot: Optimizing Monetary Cost for HPC Applications in the Cloud Spot Market.*
Amelie Chi Zhou, Jianming Lao, Zhubin Ke, Yi Wang and Rui Mao. IEEE Trans. Parallel Distributed Syst. PrePrints pp. 1-1 (TPDS 2022) (A*)
- [J9] *Taming System Dynamics on Resource Optimization for Data Processing Workflows: A Probabilistic Approach.*
Amelie Chi Zhou, Weilin Xue, Yao Xiao, Bingsheng He, Shadi Ibrahim and Reynold Cheng. IEEE Trans. Parallel Distributed Syst. 33(1): 231-248 (TPDS 2022) (A*)
- [J8] *An Efficient Parallel Secure Machine Learning Framework on GPUs.*
Feng Zhang, Zheng Chen, Chenyang Zhang, **Amelie Chi Zhou**, Jidong Zhai, Xiaoyong Du. IEEE Trans. Parallel Distributed Syst. 32(9): 2262-2276 (TPDS 2021) (A*)

¹The ranking is based on the CORE's journals and conferences ranking <https://www.core.edu.au/conference-portal>

- [J7] *Cost-Aware Partitioning for Efficient Large Graph Processing in Geo-Distributed Datacenters.*
Amelie Chi Zhou, Bingkun Shen, Yao Xiao, Shadi Ibrahim, Bingsheng He. IEEE Trans. Parallel Distrib. Syst. 31(7): 1707-1723 (TPDS 2020) (**A***)
- [J6] *Privacy Regulation Aware Process Mapping in Geo-Distributed Cloud Data Centers.*
Amelie Chi Zhou, Yao Xiao, Yifan Gong, Bingsheng He, Jidong Zhai, Rui Mao. IEEE Trans. Parallel Distrib. Syst. 30(8): 1872-1888 (TPDS 2019) (**A***)
- [J5] *Improving the Effectiveness of Burst Buffers for Big Data Processing in HPC Systems with Eley.*
 Orcun Yildiz, **Amelie Chi Zhou**, Shadi Ibrahim. Future Gener. Comput. Syst. 86: 308-318 (FGCS 2018) (**A**)
- [J4] *A Declarative Optimization Engine for Resource Provisioning of Scientific Workflows in Geo-Distributed Clouds.*
Amelie Chi Zhou, Bingsheng He, Xuntao Cheng, Chiew Tong Lau. IEEE Trans. Parallel Distrib. Syst. 28(3): 647-661 (TPDS 2017) (**A***)
- [J3] *Monetary Cost Optimizations for Hosting Workflow-as-a-Service in IaaS Clouds.*
Amelie Chi Zhou, Bingsheng He, Cheng Liu. IEEE Trans. Cloud Comput. 4(1): 34-48 (TCC 2016) (**JCR-Q1, Impact Factor: 5.938**)
- [J2] *Improving Update-Intensive Workloads on Flash Disks through Exploiting Multi-Chip Parallelism.*
 Bingsheng He, Jeffrey Xu Yu, **Amelie Chi Zhou**. IEEE Trans. Parallel Distrib. Syst. 26(1): 152-162 (TPDS 2015) (**A***)
- [J1] *Transformation-Based Monetary Cost Optimizations for Workflows in the Cloud.*
Amelie Chi Zhou, Bingsheng He. IEEE Trans. Cloud Comput. 2(1): 85-98 (TCC 2014) (**JCR-Q1, Impact Factor: 5.938**)
Spotlight article of the issue, invited presentation at IEEE CloudCom 2014.

5.2 Refereed Book Chapters

- [BC1] *A Taxonomy and Survey of Scientific Computing in the Cloud.*
Amelie Chi Zhou, Bingsheng He, Shadi Ibrahim. Full chapter in Big Data: Principle and Paradigms, Wiley press, 2016.

5.3 Refereed Conference Papers

(in reverse chronological order)

- [C19] *DyVer: Dynamic Version Handling for Array Databases.*
Amelie Chi Zhou, Zhoubin Ke, Jianming Lao. ACM Symposium on Cloud Computing (ICS 2023) (**A**)
- [C18] *GeoPregel: An End-to-End System for Privacy-Preserving Graph Processing in Geo-Distributed Data Centers.*
Amelie Chi Zhou, Ruibo Qiu, Thomas Lambert, Tristan Allard, Shadi Ibrahim, Amr El Abbadi. ACM Symposium on Cloud Computing (SoCC 2022)
- [C17] *Adaptive Partitioning for Large-Scale Graph Analytics in Geo-Distributed Data Centers.*
Amelie Chi Zhou, Juanyun Luo, Ruibo Qiu, Haobin Tan, Bingsheng He, Rui Mao. IEEE International Conference on Data Engineering (ICDE 2022) (**A***)
- [C16] *ParSecureML: An Efficient Parallel Secure Machine Learning Framework on GPUs.*
 Zheng Chen, Feng Zhang, **Amelie Chi Zhou**, Jidong Zhai, Chenyang Zhang, Xiaoyong Du. International Conference on Parallel Processing (ICPP 2020) (**A**)

- [C15] *PATCH: Process-Variation-Resilient Space Allocation for Open-Channel SSD with 3D Flash.*
Jing Chen, Yi Wang, **Amelie Chi Zhou**, Rui Mao, Tao Li. Design, Automation and Test in Europe Conference (DATE 2019) (B)
- [C14] *Towards Cross-Platform Inference on Edge Devices with Emerging Neuromorphic Architecture.*
Shangyu Wu, Yi Wang, **Amelie Chi Zhou**, Rui Mao, Zili Shao, Tao Li. Design, Automation and Test in Europe Conference (DATE 2019) (B)
- [C13] *Incorporating Probabilistic Optimizations for Resource Provisioning of Data Processing Workflows.*
Amelie Chi Zhou, Yao Xiao, Bingsheng He, Shadi Ibrahim, Reynold Cheng. International Conference on Parallel Processing (ICPP 2019) (A)
- [C12] *BriskStream: Scaling Data Stream Processing on Shared-Memory Multicore Architectures.*
Shuhao Zhang, Jiong He, **Amelie Chi Zhou**, Bingsheng He. ACM Special Interest Group on Management of Data Conference (SIGMOD 2019) (A*)
- [C11] *Nitro: Network-Aware Virtual Machine Image Management in Geo-Distributed Clouds.*
Jad Darrous, Shadi Ibrahim, **Amelie Chi Zhou**, Christian Perez. IEEE/ACM International Symposium on Cluster, Cloud and Grid (CCGrid 2018) (A)
The source code is publicly available at: <https://gitlab.inria.fr/damas/nitro>
- [C10] *Energy-Efficient Speculative Execution using Advanced Reservation for Heterogeneous Clusters.*
Amelie Chi Zhou, Tien-Dat Phan, Shadi Ibrahim, Bingsheng He. International Conference on Parallel Processing (ICPP 2018) (A)
- [C9] *Eley: On the Effectiveness of Burst Buffers for Big Data Processing in HPC systems (Short Paper).*
Orcun Yildiz, **Amelie Chi Zhou**, Shadi Ibrahim. IEEE International Conference on Cluster Computing (IEEE Cluster 2017) (A)
- [C8] *Energy-Driven Straggler Mitigation in MapReduce.*
Tien-Dat Phan, Shadi Ibrahim, **Amelie Chi Zhou**, Guillaume Aupy, Gabriel Antoniu. International European Conference on Parallel and Distributed Computing (Euro-Par 2017) (A)
- [C7] *On Achieving Efficient Data Transfer for Graph Processing in Geo-Distributed Datacenters.*
Amelie Chi Zhou, Shadi Ibrahim, Bingsheng He. IEEE International Conference on Distributed Computing Systems (ICDCS 2017) (A)
- [C6] *Revisiting the Design of Data Stream Processing Systems on Multi-Core Processors.*
Shuhao Zhang, Bingsheng He, Daniel Dahlmeier, **Amelie Chi Zhou**, Thomas Heinze. IEEE International Conference on Data Engineering (ICDE 2017) (A*)
- [C5] *Multi-objective Optimizations in Geo-Distributed Data Analytics Systems.*
Zhaojie Niu, Bingsheng He, **Amelie Chi Zhou**, Chiew Tong Lau. IEEE International Conference on Parallel and Distributed Systems (ICPADS 2017) (B)
- [C4] *Efficient process mapping in geo-distributed cloud data centers*
Amelie Chi Zhou, Yifan Gong, Bingsheng He, Jidong Zhai. International Conference for High Performance Computing, Networking, Storage and Analysis (SC 2017) (A)
- [C3] *A Declarative Optimization Engine for Resource Provisioning of Scientific Workflows in IaaS Clouds.*
Amelie Chi Zhou, Bingsheng He, Xuntao Cheng, Chiew Tong Lau. International Symposium on High-Performance Parallel and Distributed Computing (HPDC 2015) (A)
- [C2] *Monetary cost optimizations for MPI-based HPC applications on Amazon clouds: checkpoints and replicated execution.*
Yifan Gong, Bingsheng He, **Amelie Chi Zhou**. International Conference for High Performance Computing, Networking, Storage and Analysis (SC 2015) (A)

- [C1] *Simplified Resource Provisioning for Workflows in IaaS Clouds.*
Amelie Chi Zhou, Bingsheng He. IEEE International Conference on Cloud Computing Technology and Science (CloudCom 2014) (C)
Best PhD Consortium Award

5.4 Refereed Posters in Conference without Proceedings

- [O4] *Performance and Monetary Cost Optimizations for Scientific Workflows in the Cloud: A Probabilistic Approach.*
Amelie Chi Zhou, Bingsheng He, Shadi Ibrahim, Reynold C.K. Cheng. The ACM Symposium on High-Performance Parallel and Distributed Computing (HPDC 2015) (A)
- [O3] *Monetary Cost Optimizations for HPC Applications on Amazon Clouds: Checkpoints and Replicated Execution.*
 Yifan Gong, **Amelie Chi Zhou**, Bingsheng He. International Conference for High Performance Computing, Networking, Storage and Analysis (SC 2014) (A)
- [O2] *Dyna: A Probabilistic Optimization Framework for Hosting Workflow-as-a-Service in IaaS Clouds.*
Amelie Chi Zhou, Bingsheng He. IEEE International Parallel & Distributed Processing Symposium (IPDPS 2014) (A)
- [O1] *Cloud is Dynamic. How About Our Software Systems?.*
Amelie Chi Zhou, Bingsheng He. ACM Asia-Pacific Workshop on Systems (APSYS'13)

6 Projects and Fundings

I have led as a PI multiple grants with a total funding of ~¥8M.

- [PI] **National Natural Science Foundation of China - General Program** 2022 – 2025
 Geo-distributed graph computing systems suffer from large computing scale, complex communication patterns, and data movement constraints due to data privacy requirements. How to effectively utilize the hardware resources of geo-distributed systems to realize fast and private graph computing is a major challenge to big data system designers. The goal of this project is to build an accurate and unified model for geo-distributed systems and design geo-aware optimization methods for graph applications accordingly. (*Budget: 580,000 CNY, funding rate 17.4% nationwide*)
- [PI] **Guangdong Natural Science Foundation - General Program** 2022 – 2024
 Data privacy laws and regulations have brought great challenges to inter-DC collaborative data analytics. Traditional big data systems achieve efficient collaborative data processing by optimizing the inter-DC data communication between DCs. However, existing studies have seldom consider privacy issue. The goal of this project is to design and develop efficient and privacy-preserving big data systems running in multiple DCs. (*Budget: ¥100,000*)
- [PI] **Tencent “Rhino-bird” Research Fund** 2020 – 2022
 This project is granted to the recipients of Tencent “Rhino-bird” Open-Funded Young Researcher Award to support young faculties exploring innovative ideas in different disciplines. There are only two recipients in computer science in 2020. (*Budget: ¥60,000*)
- [PI] **National Natural Science Foundation of China - Young Scientists Fund** 2019 – 2021
 This project aims at tackling the challenges of running scientific applications in the cloud, including single cloud region and multiple geo-distributed cloud regions. This project provide performance and cost efficient solutions for scientific applications, especially scientific workflows which have complicated data dependencies. (*Budget: ¥260,000, funding rate 25.5% nationwide*)
- [PI] **Shenzhen Overseas High-Caliber Personnel** 2019 – 2021
 The Shenzhen Overseas High-Caliber Personnel is an individual research project granted to researchers with high quality research records and good research potential. This project aims at addressing the performance

variation problem in large-scale distributed systems, in order to provide predictable and stable performance optimization for big data applications. This project is important to different types of distributed systems that are shared among multiple users. The project also attracted interests from industry such as Alibaba. (*Budget: ¥2,700,000 + ¥1,600,000 compensation*)

[PI] Shenzhen STI Free Exploration Project 2019 – 2021

The Shenzhen STI Free Exploration Project is granted to young and potential researchers to perform basic research in areas where they found important. This project targets at the system challenges in wide area network and aims at designing new method to improve system efficiency for graph-like applications. (*Budget: ¥300,000*)

[PI] Guangdong Natural Science Foundation - Young Scientists Fund 2018 – 2020

This project targets at the timely and important data privacy issues. It aims at optimizing the resource management problem for large-scale big data applications in geo-distributed clouds, where the network performance heterogeneity and privacy constraints are the main challenges. (*Budget: ¥100,000*)

7 Teaching

Undergraduate Courses

- Parallel Computing 2018 - 2019 Spring, 2019 - 2020 Fall
Typical class size: 30 – 60, designed for the special class in high performance computing.
Textbook: *Parallel Computing - Structures, Algorithms, Programming*, CHEN Guoliang.
- Computer Systems (II) 2019 - 2022 Spring
Typical class size: 30 – 60, designed for year 2 CS students.
Textbook: *Computer Systems: A Programmer's Perspective*, Randal E. Bryant.
- Computer Systems (III) 2018 - 2019 Fall, 2020 - 2021 Fall
Typical class size: 30 – 60, designed for year 3 CS students.
Textbook: *Computer Organization and Design: The Hardware/Software Interface*, Patterson, Hennessy.
- Cloud Computing Engineering 2021 - 2023 Fall
Typical class size: 30, designed for the AI specialization program in collaboration with Tencent Cloud.

Master Courses

- Combinatorial Mathematics 2018 - 2019 Spring, 2019 - 2020 Spring
Typical class size: 100 – 200, core course for year 1 master students.
Textbook: *Introductory Combinatorics*, Richard A. Brualdi.

8 Professional Service Activities

8.1 Journal Editorships

Editor of the Springer *Future Generation Computer Systems* (SCI Index, IF=7.19). *Started from Jun 2021*

Associate Editor of the IEEE *Transactions on Parallel and Distributed Computing* (CCF-A Journal). *Started from Jan 2022*

Guest Editor of *Concurrency and Computation: Practice and Experience* (SCI Index, IF=1.831). *Started from Mar 2022*

8.2 Conference Organizers and Chairs

General Chair of 8th International Parallel Data Systems Workshop (**PDSW@SC2023**).

Program Chair of 6th/7th International Parallel Data Systems Workshop (**PDSW@SC2021/SC2022**).

Program Chair of 15th International Workshop on Parallel Programming Models and Systems Software for High-End Computing (**P2S2@ICPP2022/ICPP2023**).

BoF Chair of IEEE/ACM International Conference for High Performance Computing, Networking, Storage, and Analysis (**SC 2024**).

Track Co-Chair of the Measurements, Modeling, and Experiments Track, 38th IEEE International Parallel & Distributed Processing Symposium (**IPDPS 2023**).

Co-Chair of the SCALE Challenge track of The 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (**CCGrid 2023**).

Publicity Co-Chair of IEEE International Conference on Cloud Computing (**CLOUD 2023**), July 2023.

Track Vice-Chair of the Machine Learning with HPC Track, IEEE/ACM International Conference for High Performance Computing, Networking, Storage, and Analysis (**SC 2022**).

Student Program Co-Chair of International Conference on Parallel Processing (**ICPP 2022**), Aug 2022, Bordeaux, France.

Publicity Co-Chair of IEEE International Symposium on Computer Architecture and High Performance Computing (**SBAC-PAD 2022**), Nov 2022, Bordeaux, France.

Panel Vice-Chair of IEEE/ACM International Conference for High Performance Computing, Networking, Storage, and Analysis (**SC 2021**), Nov 2021, St. Louis, Missouri, USA.

Track Co-Chair of Scalable Algorithms and Analytics Track, 27th IEEE International Conference on High Performance Computing, Data, and Analytics (**HiPC 2020**), Dec 2020.

Posters and Demo Co-Chair of IEEE International Conference on Distributed Computing Systems (**ICDCS 2020**), July 2020, Singapore.

Program Co-Chair of IEEE International Conference on Smart Data (**SmartData-2019**), July 2019, Atlanta, Georgia, USA.

Track Co-Chair of Big Data Applics. and Experiences Track, IEEE BigData Congress 2018, July 2018, San Francisco, CA, USA.

Local Co-Chair, IEEE International Conference on Cloud Computing Technology and Science (**CloudCom 2014**), Dec 2014, Singapore.

8.3 Membership in Technical Program Committees

International Conferences

IEEE/ACM International Conference for High Performance Computing, Networking, Storage, and Analysis (**SC**): 2018 (Posters), 2019 (Panels), 2020 (Papers), 2023 (Posters, BoF, Reproducibility).

ACM International Conference on Information and Knowledge Management (**CIKM**): 2019, 2020, 2021, 2022, 2023.

International Conference on Parallel Processing (**ICPP**): 2022, 2023.

USENIX Conference on File and Storage Technologies (**FAST**): 2022.

IEEE International Parallel & Distributed Processing Symposium (**IPDPS**): 2022 (Best paper selection).

IEEE International Conference on Distributed Computing Systems (**ICDCS**): 2021, 2022.

IEEE International Conference on Cluster Computing (**Cluster**): 2020, 2021, 2022.

ACM Workshop on Hot Topics in Storage and File Systems (**HotStorage**): 2022.

ACM International Symposium on High-Performance Parallel and Distributed Computing (**HPDC**): 2018 (Posters), 2021 (Papers).

IEEE International Conference on High Performance Computing, Data, and Analytics (**HiPC**): 2021.

IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (**CCGrid**): 2017, 2019, 2020, 2021.

IEEE International Conference on Big Data (**BigData**): 2018, 2019, 2020, 2021.

International Conference on High Performance Computing in Asia Pacific Region (**HPCAsia**): 2019, 2020, 2021.

Supercomputing Frontiers Asia (**SCFA**): 2020.

Supercomputing Asia (**SCA**): 2018, 2020.

IFIP International Conference on Network and Parallel Computing (**NPC**): 2018, 2019.

IEEE International Conference on Data Science and Systems (**DSS**): 2019.

IEEE International Congress on Big Data (**BigData Congress**): 2019.

The International Conference on Progress in Informatics and Computing (**PIC**): 2018.

The IEEE International Conference on Parallel and Distributed Systems (**ICPADS**): 2017, 2018.

International Workshops

The International Workshop on Programming Models and Applications for Multicores and Manycores (**PMAM@PPoPP**): 2020, 2021.

The International Parallel Data Systems Workshop (**PDSW@SC**): 2019, 2020.

The International workshop on the Convergence of Extreme Scale Computing and Big Data Analysis (**CEBDA@CCGrid**): 2018, 2019.

National Conferences

HPC China: 2018, 2019, 2021.

Women in HPC Workshop in conjunction with HPC China 2015.

8.4 Invited Reviewer for Journals

IEEE Transactions on Parallel and Distributed Systems (**TPDS**)

IEEE Transactions on Cloud Computing (**TCC**)

IEEE Transactions on Big Data (**TBD**)

IEEE Transactions on Knowledge and Data Engineering (**TKDE**)

IEEE Transactions on Network Science and Engineering (**TNSE**)

ACM Transactions on Internet Technology (**TOIT**)

ACM Transactions on Autonomous and Adaptive Systems (**TAAS**)

ACM Computing Surveys (**CSUR**)

Elsevier Journal of Parallel and Distributed Computing (**JPDC**)

Future Generation Computer Systems (**FGCS**)

Springer Journal of Supercomputing (**SUPE**)

International Journal of High Performance Computing and Networking (**IJHPCN**)

Concurrency and Computation: Practice and Experience (**CCPE**)

8.5 External/Invited Academic Services

Reviewer for IEEE-CS TCHPC Early Career Researchers Award 2022.

Grant proposal reviewer for NSFC General Program 2022.

External Reviewers for Ph.D. thesis/proposal (Tsinghua University, 2019/2020)

Senior Member of China Computer Federation (CCF) Technical Committee on HPC

9 Selected Scholarly Addresses

9.1 Invited talks and tutorials

- [SA9] *PGPregel: An End-to-End System for Privacy-Preserving Graph Processing in Geo-Distributed Data Centers*. **Invited talk** at the Joint Workshop on Hot Topics on System Research, Huazhong University of Science and Technology, Dec 2022.
- [SA8] *Efficient Large Graph Processing in Geo-Distributed Environments*. **Invited talk** at Qingyuan Live, online, Jan 2021.
- [SA7] *Efficient Partitioning for Large Graphs in Geo-Distributed Environments*. **Invited talk** at Tianjing University, online, Dec 2020.
- [SA6] *Parallel Computing and It's Application to Engineering Modeling*. **Invited tutorial** (two days) at China Nuclear Power Design Company, Shenzhen, Oct 2019.
- [SA5] *Privacy-Aware Process Mapping in Geo-Distributed Cloud Data Centers*. **Invited talk** at DL4Sci workshop, colocated with HPCAsia'19, Guangzhou, China, Jan 2019.
- [SA4] *Simplified and Effective Resource Provisioning for Scientific Workflows in IaaS Clouds*. **Invited talk** at Anhui Jianzhu University, Hefei, China, March 2018.
- [SA3] *Efficient Process Mapping in Geo-Distributed Cloud Data Centers*. **Invited talk** at Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China, Dec 2017.
- [SA2] *Effective and Simplified Big Data Management on Clouds*. **Invited talk** at Beihang University Vision Forum for International Young Scholars, Beijing, China, May 2017.
- [SA1] *Monetary Cost Optimizations for Workflows in the IaaS Cloud*. **Invited talk** at Argonne National Laboratory, Chicago, USA, May 2014.

9.2 Conference talks

- [CT7] *Energy-Efficient Speculative Execution using Advanced Reservation for Heterogeneous Clusters*. ICPP'18, Eugene, OR, USA, Aug 2018.
- [CT6] *Efficient Process Mapping in Geo-Distributed Cloud Data Centers*. SC'17, Denver, CO, USA, Nov 2017.
- [CT5] *On Achieving Efficient Data Transfer for Graph Processing in Geo-Distributed Datacenters*. ICDCS'17, Atlanta, GA, USA, Jun 2017.
- [CT4] *Incorporating Probabilistic Optimizations for Resource Provisioning of Cloud Workflow Processing*. 5th JLESC Workshop, Lyon, France, Jun 2016.
- [CT3] *A Declarative Optimization Engine for Resource Provisioning of Scientific Workflows in IaaS Clouds*. HPDC'15, Portland, USA, June 2015.
- [CT2] *Transformation-based Monetary Cost Optimizations for Workflows in the Cloud*. Invited IEEE TCC Paper Presentation at CloudCom'14, Singapore, Dec 2014.