

# Curriculum Vitae

**Zhihui Du**

**Associate Professor**

Department of Computer Science and Technology, Tsinghua University, Beijing 100084. P.R.China

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**Research Fields and Interests:**

Parallel Algorithm Design and Optimization, Scheduling Algorithm, Energy Efficient Computing, GPGPU computing, Cluster/High Performance Computing, Cloud/Service/Grid Computing

**Working Experience**

2001.8-Current: Associate Professor in Computer Sci & Tech, Tsinghua University

2013.9-2014.9: Visiting Scholar in College of Computing, Georgia Institute of Technology

2008.1-2008.12: Visiting Scholar in College of Computing, Georgia Institute of Technology

2000.6-2001.7: Assistant Professor in Computer Sci & Tech, Tsinghua University

1998.9-2000.5: PostDoc in Computer Sci & Tech, Tsinghua University

**Education Experience**

1995.9-1998.7 Ph.D. in Computer Sci & Tech, Peking University

1992.9-1995.7 M.S. in Computer Sci & Tech, Peking University

1988.9-1992.7 B.S. in Computer Sci & Tech, Tianjin University

**Teaching Experience**

Graduate Courses:

Grid Computing (2003-Current)

Parallel Programming Technology in Computational Science and Engineering (2002-Current)

Undergraduate Courses:

Subjects on Information Technology Application (2001-2002)

Network Programming and Computing Technology (2005-2006)

**Honors and Awards**

First Class ShenZhen Science & Technology Progress Award, 2004, Rank 2

First Class Shanghai Science & Technology Progress Award, 2001, Rank 3

Second Class Science & Technology Progress Award of the Ministry of Education, 2000, Rank 4

**Membership: IEEE/ACM**

**Publications**

Published papers 100+ (SCI 20+, Ei 60+, Conference Papers 60+). Published books (8)

**Projects**

Total 36

PI for 17 projects:

National Natural Science Foundation of China projects (4),

Beijing Natural Science Foundation projects (3)

Ministry of Education project (1), National High-Tech R&D Program project (1)

International Collaboration project (1), Domestic Collaboration projects (6)

Tsinghua University Foundation projects (3), PostDoctor Science Foundation project (1)

Joining 17 projects:

National Fundamental Research Program project (1),

Key National Natural Science Foundation project (1), etc.

## List of Honors and Awards

- [1] “DeepSuper-21C Supercomputer System” (the 163th supercomputer in Nov. 2003 TOP 500 list) . First Class ShenZhen Science & Technology Progress Award, 2004, Rank 2 among the award winners
- [2] “ZiQiang 2000 High Performance Computer System SUHPCS” First Class Shanghai Science & Technology Progress Award, 2001, Rank 3 among the award winners
- [3] “THNPSC-1 Supercomputer System” Second Class Science & Technology Progress Award of the Ministry of Education, 2000, Rank 4 among the award winners

## List of Patents

- [1] Hardware based Virtual Interface Architecture User Level Communication System. No. 200510002117.4.Ruichun Tang, Zhihui Du, Qunsheng Ma, Ziyu Zhu and Feng Yang. In Chinese
- [2] Dynamic Data Transformation Optimization in Service Oriented Architecture Environment. No.200610144014.6. Zhihui Du, Zhili Cheng, Man Wang, Suihui Zhu. In Chinese
- [3] Virtual Services Scheduling in Grid Workflow based on Open Grid Service Architecture. No. 200610165247.4. Zhihui Du, Man Wang, Zhili Cheng, Suihui Zhu. In Chinese

## List of Research Projects

- [1] Ministry of Education Research Center for Online Research key Project. “Learning Behavior Modeling and Analyzing based on the Big Data from Massive Open Online Courses”. 2016.1-2017.12. Grant No. 2016ZD302. 200,000 RMB. PI.
- [2] National Nature Science Foundation of China Project. “Co-Optimization Model and Methods for Large Scale Parallel Applications on GPU Clusters”, 2015.1-2015.12, Grant No. 61440057, 190,000 RMB. PI
- [3] Collaboration Project. “Internet Image Database and Screening System”. 2014.12.1-2015.11.30. 380,000 RMB. PI
- [4] National Nature Science Foundation of China Project. “Energy Efficient Task Scheduling Model and Algorithm: Adapting GPU Clusters to Power Budget, 2013.1-2016.12, Grant No. 61272087, 840,000 RMB. PI
- [5] Beijing Natural Science Foundation Project “Energy Efficient Scheduling Algorithms for New Generation Supercomputer ”2012.1-2014.12, Grant No. 4122039, 110,000 RMB. PI
- [6] National Nature Science Foundation of China Project. “Design and Optimization of Parallel Sorting Algorithm based on GPU”, 2011.1-2013.12, Grant No. 61073008, 360,000 RMB. PI
- [7] Collaboration Project. “Simulation Resources Management and Billing System”. 2010.6-2010.12. 370,000RMB.PI
- [8] Ministry of Education of China Project. “Streaming Media Cluster System for National Excellent Courses Integration Project”, 2007.6-2010.6. Grant No. JPKC-5, 2,100,000 RMB. PI
- [9] Beijing Natural Science Foundation Project “Research on Supercomputer Hierarchical Task Scheduling Algorithm”2008.1-2010.12, Grant No.4082016, 110,000 RMB. PI
- [10] National Nature Science Foundation of China Project. “Nodes Clustering based Hierarchical Message Scheduling Model and Algorithm”, 2008.1-2008.12, Grant No. 60773148, 80,000 RMB. PI
- [11] National Nature Science Foundation of China Project. “HXMT Science Ground Segment Prototype”, 2007.1-2009.12, 2500,000 RMB. Grant No. 10778604. 2,200,000RMB. Member
- [12] Collaboration Project. “Development of Information Grid Management Mechanism and Scheduling Algorithm with QoS Support”. 2007.4-2007.12. 90,000RMB.PI
- [13] National Nature Science Foundation of China Project. “Contractor based Mechanism and Model to Support Grid Service QoS”, 2006.1-2008.12, Grant No. 60503039. 240,000 RMB.PI
- [14] National Fundamental Research 973 Program ‘Fundamental Research on Improving the Reliability of Large Electric Power Grid’ , Subproject ‘Research on the Distributed Computing Theory and Method of Large Electric Power Grid’ (Grant No. 2004CB217903, 2004.9-2009.9), 1,570,000RMB. Member
- [15] European Commission (EC) Asia-Link Programme . “EA-Grid: Euro-Asia United Establishment of Double Degree

- Master Programme in Grid Computing”, 2005.12 -2006.12, 400,000euros. Member
- [16] National High-Tech Research and Development Plan of China, “Research and Development of a Simulation Application Grid”. Grant No 2004AA104330,1,300,000RMB. Vice PI
- [17] Beijing Natural Sciences Foundation, “Research on Building Giganet/SAN Hardware and Software System”, Grant No.4042018. 120,000RMB. PI
- [18] Collaboration Project with HeBei University .”HDJK-32 High Performance Cluster System”. 2003.10-2004.7 1,000,000RMB. PI
- [19] IBM foundation . “EzGrid:Research on Automatic Computing Grid Key Technology”, 2002.9-2003.12, 230,000RMB Co-PI
- [20] National High-Tech Research and Development Plan of China, Subproject “64bit High Performance Cluster Communication System” 2003.5—2003.12, 200,000RMB. PI
- [21] Domestic collaboration project. “High Performance Computing based Parallel Algorithm Design and Application” . 2003.10-2004.12, 35,000RMB. PI
- [22] Tsinghua University Information School Foundation. “Parallel Simulated Annealing Algorithm Research”. 1999.10-2002.9, 150,000RMB. Co-PI
- [23] Tsinghua University Basic Research Foundation “Grid Computing Model Research Based on Mini Grid System “. 2001.11-2003.10, 80,000RMB. PI
- [24] Tsinghua Key Researcher Supporting Program. “Research on Cluster Computing Technology”. 2000.7-2002.12, 30,000RMB. PI
- [25] Domestic Collaboration project “Development of MPI (Message Passing Interface) Course Material”. 2001.7—2002.6,100000MB. PI
- [26] HuaWei Sci&Tech. Foundation. “SAN High Speed Interconnection Communication”. 2002.2-2002.10,80,000RMB. PI
- [27] Chinese Postdoctoral Science Foundation. “Compilation Technology based on Supernodes “. 1999.1-2000.8, 10,000RMB. PI
- [28] Collaboration project. “DeepSuper-21C Supercomputer System”. 2002-2004, 8,000,000RMB. Member
- [29] Tsinghua University 985 project. “Scalable High Performance Cluster System”. 2000.1-2002.12, 8,000,000RMB. Member
- [30] Domestic Collaboration project. “Design of a Simulation Grid System”. 2002.8-2003.12, 100,000RMB, Member
- [31] Tsinghua University Basic Research Foundation. “Quantitative Prediction and Analysis on Material based on Interdisciplinary High Performance Computing Platform”. 2000.11-2002.10, 300,000. Member
- [32] Ministry of Education Key Project “Pilot Project of Advanced Computational Infrastructure Between Beijing and Shanghai”. 2000.8-2001.6. 1,500,000RMB, Member
- [33] Shanghai Technology Committee project. “ZiQian 2000 High Performance Supercomputer SUHPCS”. 1999.8-2000.9, 3,000,000RMB. Member
- [34] Climbing B Project “Networked Parallel Supercomputer System THNPSC-1”. 1998.9-1999.4. 1,200,000. Member
- [35] Shanghai Science and Technology Committee project “ZiQiang 2000 extension”. 2000.12-2001.3. 600,000. Member
- [36] Shanghai Science and Technology Committee project. “Research and Implementation of Security Service and Management System of High Performance Platform on Network Environment”. 1999.8-2001.4. 400,000MB. Member
- [37] National High-Tech Research and Development Plan of China. “HPF Compilation System”. 1996.8-1998.6, 240,000RMB. Member
- [38] National Climbing Program B project. “Research on Parallel Compilation Technology and Its Infrastructure” 1995.8-1998.6, 240000RMB. Member
- [39] Collaboration project. “Long Distance Telephone Management Geographic Information System of Shanxi Province”. 1993-1995. 50,000RMB. Member
- [40] Collaboration project. “Local Telephone Management System of Taiyuan City”. 1992-1994. 30,000RMB. Member



# List of Services

## Associate Editor

*Transactions on Parallel and Distributed Systems(TPDS)(2014-now)*

*Journal of Parallel and Distributed Computing (JPDC)(2011-now)*

*International Journal of Parallel, Emergent and Distributed Systems (IJPEDS)(2011-now)*

## Program Vice Chair

*IEEE International Parallel & Distributed Processing Symposium (IPDPS) (2012)*

## Workshop Co-Chair

*International Conference on Computer Communications and Networks (ICCCN 2014)*

## Doctoral Symposium Co-Chair

*IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGRID 2015)*

## Keynote Speech

*HPGC 2012 (High-Performance Grid and Cloud Computing Workshop) Keynote: Building a Robot Cloud*

## Panel Member

*NDM 2012 (International Workshop on Network Aware Data Management) Panel Discussion: New Directions in Networking and Data Management*

*IPDPS 2012 (IEEE International Parallel & Distributed Processing Symposium) Panel Discussion: Will exascale computing really require new algorithms and programming models?*

## Technical Program Committee

*International Conference on Cloud Computing and Big Data (CloudCom-Asia 2015)*

*IEEE International Symposium on Big Data Security on Cloud (BigDataSecurity 2015)*

*International Workshop on Software-Defined Ecosystems (BigSystem 2014-2015)*

*International Workshop on High Performance Computing for Big Data (HPC4BD 2015)*

*International Conference on Platform Technology and Service (PlatCon-15)*

*International Symposium on Computing and Networking(CANDAR2015)*

*International Conference on Parallel Processing (ICPP 2014)*

*International Congress on Big Data (BigData 2014)*

*IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGRID 2010-2012,2014)*

*IEEE International Parallel & Distributed Processing Symposium (IPDPS 2010-2011)*

*IEEE International Conference on Cloud Computing Technology and Science (CloudCom 2012-2013)*

*IFIP International Conference on Network and Parallel Computing (NPC 2013)*

*International Conference on Networking and Computing(ICNC2012)*

*IEEE/ACM International Conference on Utility and Cloud Computing(UCC2012)*

*International Conference on Parallel, Distributed and Grid Computing (PDGC-2012)*

*International European Conference on Parallel and Distributed Computing (Euro-Par2012-2013)*

*International Conference on Cloud Computing and Big Data (CloudCom-Asia 2013)*

*IEEE International Conference on Computational Science and Engineering (CSE 2011)*

*International Conference on Parallel and Distributed Systems (ICPADS 2010, 2012)*

*IEEE International Conference on High Performance Computing (HiPC2012)*

*SIAM Conference on Parallel Processing for Scientific Computing (PP12)*

*International Workshop on Network-aware Data Management (NDM 2011-2012)*

*International Workshop on Parallel Programming Models and Systems Software for High-End Computing (P2S2 2011-2014)*

*International Symposium on Distributed Computing and Applications to Business, Engineering and Science (DCABES 2010,2012-2014)*

*International ICST Conference on Simulation Tools and Techniques (Simutools 2010)*

*International Conference on Contemporary Computing (IC3 2008,2010)*

**Reviewer**

*IEEE Transactions on Computers (TC), IEEE Transactions on Parallel and Distributed Systems (TPDS),  
IEEE's Transactions on Services Computing (TSC), Computers & Geosciences, Journal of Software (JOS)  
Chinese Journal of Computers (CJC), Chinese Journal of Electronics (CJE), Journal of Tsinghua University*

## Publications

### Books/Book Chapters

- [1] Zhihui Du, et al. translation into Chinese. Algorithms and Parallel Computing. By Fayez Gebali. Published by JohnWiley & Sons, Inc. 2011. ISBN:978-0-470-90210-3. Chinese version is published by Tsinghua University Publication. 2012. ISBN:978-7-302-29009-4
- [2] Zhihui Du, Zhili Cheng, Xiaoying Wang, and Chuang Lin, "QoS in Grid Computing", In Encyclopedia of Grid Computing Technologies and Applications, 1st Edition, Editors: Emmanuel Udoh, Published by Information Science Reference.
- [3] Man Wang, Zhihui Du, Zhili Cheng, "Adaptive Resource Management in Grid Environment", In Encyclopedia of Grid Computing Technologies and Applications, 1st Edition, Editors: Emmanuel Udoh, Published by Information Science Reference.
- [4] Zhihui Du, et al. translation into Chinese. "Petascale Computing Algorithms and Applications". By David A. Bader. For Chinese version, Tsinghua University Publication, ISBN: 978-7-302-17722-7, 2008.8
- [5] Zhihui Du, et al.translation into Chinese. "Grid Computing: Making the Global Infrastructure a Reality". By Francine Berman, Geoffrey C. Fox, Tony Hey. Wiley. For Chinese version, Publication of Huazhong University of Science and Technology. June,2005.ISBN7-5609-3392-0
- [6] Zhihui Du, Yu Chen, Peng Liu, "Grid Computing", Tsinghua University Publication, ISBN: 7-302-05939-X, 2002.10. in Chinese.
- [7] Zhihui Du, "MPI Parallel Programming", Tsinghua University Publication, ISBN: 7-302-04566-6, 2001.8 in Chinese
- [8] Zhihui Du (chief editor) , Peng Liu and Yu Chen (associated chief editor), "Practical Programming in XML", Tsinghua University Publication, ISBN:7-900643-85-0.2002.12. in Chinese
- [9] Zhihui Du (chief editor) , Peng Liu and Yu Chen (associated chief editor), "Practical Programming in JSP", Tsinghua University Publication, ISBN:7-900643-51-6, 2002.9. in Chinese
- [10] Zhihui Du (chief editor) , Peng Liu and Yu Chen (associated chief editor), "Practical Programming in Java 3D", Tsinghua University Publication, ISBN:7-900643-65-6, 2002.11

### 2016

#### Journal Papers

- [1] Zhihui Du, Ligang He, Yinong Chen, Yu Xiao, Peng Gao, Tongzhou Wang. RobotCloud: Bridging the Power of Robotics and Cloud Computing. Future Generation Computer Systems. Accepted.

### 2015

#### Journal Papers

- [2] Sen Zhang, Zhihui Du, Jason Tsong-Li Wang: New Techniques for Mining Frequent Patterns in Unordered Trees. IEEE T. Cybernetics 45(6): 1113-1125 (2015)
- [3] Yunpeng Chai, Zhihui Du, Xiao Qin, David A. Bader. WEC: Improving Durability of SSD Cache Drives by Caching Write-Efficient Data. Transactions on Computers, 64(11), pp 3304-3316, 2015
- [4] LEE HyungMok, LE BIGOT Eric-Olivier, Zhihui Du, LIN ZhangX, GUO XiangYu, WEN LinQing, PHUKON Khun Sang, PANDEY Vihan, BOSE Sukanta, FAN Xi-Long, HENDRY Martin. Gravitational

wave astrophysics, data analysis and multimessenger astronomy. *SCIENCE CHINA Physics, Mechanics & Astronomy*, 58(12), pp 120403-1-120403-21, 2015/12/1

- [5] Wang, Xiaoying, Zhihui Du, Yinong Chen, and Mengqin Yang. "A green-aware virtual machine migration strategy for sustainable datacenter powered by renewable energy." *Simulation Modelling Practice and Theory* . No 58,pp3-14. (2015).

### Conference Papers

- [6] Xiangyu Guo, Xing Liu, Peng Xu, Zhihui Du, Edmond Chow. Efficient Particle-mesh Spreading on GPUs. *ICCS 2015*: 120-129
- [7] Wenjun Fan, Zhihui Du, David Fernández, Xinning Hui. Dynamic Hybrid HoneyPot System based Transparent Traffic Redirection Mechanism. *International Conference on Information, Communications and Signal Processing*, 2015/12/9-2015/12/11.
- [8] Wenjun Fan, David Fernández, Zhihui Du. International Conference Adaptive and Flexible Virtual Honeynet. *International Conference on Mobile, Secure and Programmable Networking*. 2015/6/15-2015/6/17
- [9] Zhenhui Liu, Jingjing He, Yufei Xue, Zhenzhong Huang, Manli Li, Zhihui Du. Modeling the Learning Behaviours of Massive Open Online Courses. *IEEE Big Data*, 2015/10/28-2015/11/1.

## 2014

### Conference Papers

- [10] Liu, Jason, Yuan Liu, Zhihui Du, and Ting Li. "GPU-assisted hybrid network traffic model." In *Proceedings of the 2nd ACM SIGSIM/PADS conference on Principles of advanced discrete simulation*, pp. 63-74. ACM, 2014.(Best Paper)

## 2013

### Journal Papers

- [11] Yu He, Xiaoying Wang, Yinong Chen, Zhihui Du, Weitong Huang, Xudong Chai. A simulation cloud monitoring framework and its evaluation model. *Simulation Modelling Practice and Theory* 38: 20-37 (2013).
- [12] Zhihui Du, Wenjun Fan, Yunpeng Chai, Yinong Chen: Priori information and sliding window based prediction algorithm for energy-efficient storage systems in cloud. *Simulation Modelling Practice and Theory* 39: 3-19 (2013)

### Conference Papers

- [13] Zhihui Du ; Hongyang Sun ; Yuxiong He ; Yu He ; Bader, D.A. ; Huazhe Zhang. Energy-Efficient Scheduling for Best-Effort Interactive Services to Achieve High Response. *Quality Parallel & Distributed Processing (IPDPS)*, 2013 IEEE 27th International Symposium on. Digital Object Identifier: 10.1109/IPDPS.2013.26. Publication Year: 2013 , Page(s): 637- 648
- [14] Du, Zhihui ; Fan, Wenjun ; Chai, Yunpeng. Three-state disk model for high quality and energy efficient streaming media servers. *Autonomous Decentralized Systems (ISADS)*, 2013 IEEE Eleventh International Symposium on. Digital Object Identifier: 10.1109/ISADS.2013.6513412. Publication Year: 2013 , Page(s): 1- 8
- [15] Zhihui Du, Ramin Yahyapour, Yuxiong He, Nectarios Koziris, Bilha Mendelson, Veronika Sonigo, Achim Streit, Andrei Tchernykh: Topic 3: Scheduling and Load Balancing -



(Introduction). Euro-Par 2013: 65

## 2012

### Journal Papers

- [16] Yuan Liu, Zhihui Du, Shin Kee Chung, Shaun Hooper, David Blair and Linqing Wen. GPU-accelerated low-latency real-time searches for gravitational waves from compact binary coalescence. *Classical and Quantum Gravity (CQG)* (SCI). Volume 29 Number 23. doi:10.1088/0264-9381/29/23/235018
- [17] Yunpeng Chai, Zhihui Du, David A. Bader, Xiao Qin. Efficient Data Migration to Conserve Energy in Streaming Media Storage Systems. *IEEE Transactions on Parallel and Distributed Systems*. Nov. 2012 (vol. 23 no. 11). pp. 2081-2093.  
<http://doi.ieeecomputersociety.org/10.1109/TPDS.2012.63> (SCI)
- [18] Xiaoying Wang, Zhihui Du, Yinong Chen. An Adaptive Model-free Resource and Power Management Approach for Multi-tier Cloud Environments. *The Journal of Systems & Software*. Vol 85. No.5. Pages : 1135-1146(SCI : 912VF)
- [19] Xiaoying Wang, Zhihui Du, Yuanyuan Xue, Lihua Fan, Rui Wang: Self-adaptive QoS-aware resource allocation and reservation management in virtualised environments. *IJCSE* 7(4): 308-318 (2012)

### Conference Papers

- [20] Du, Zhihui, Xiangyu Li, and Ji Wu. "Accelerating the Training of HTK on GPU with CUDA." In *Parallel and Distributed Processing Symposium Workshops & PhD Forum (IPDPSW)*, 2012 IEEE 26th International, pp. 1907-1914. IEEE, 2012.
- [21] Quan Yang, Zhihui Du, Sen Zhang. Optimized GPU Sorting Algorithms on Special Input Distributions. *THE ELEVENTH INTERNATIONAL SYMPOSIUM ON DISTRIBUTED COMPUTING AND APPLICATIONS TO BUSINESS, ENGINEERING AND SCIENCE (DCABES 2013)*. Guilin, China. 2012 Oct.19-22.pp57-61.
- [22] Jie Fu, Zhihui Du. A Load Balancing Strategy on Periodical MapReduce Job. *HPC China 2012*. Oct.27-31. 2012. In Chinese.
- [23] Denis Trystram, Ioannis Milis, Zhihui Du, Uwe Schwiegelshohn: Topic 3: Scheduling and Load Balancing. *Euro-Par 2012*: 115

## 2011

### Journal Papers

- [24] Zhihui Du; Tianle Zhang; Yinong Chen; Lingling Ai;Xiaoying Wang. A Content and User-Oblivious Video-Recommendation Algorithm. *Simulation Modelling Practice and Theory* 19(2011). pp1895-1912. (SCI : 916CS)
- [25] Zhihui Du, Jingkun Hu, Yinong Chen, Zhili Cheng, Xiaoying Wang. Optimized QoS-Aware Replica Placement Heuristics and Applications in Astronomy Data Grid. *The Journal of Systems & Software* 84(2011).pp1224-1232. (SCI : 780HZ)
- [26] Tianle Zhang, Zhihui Du, Yinong Chen, Xiang Ji , Xiaoying Wang. Typical Virtual Appliances: An Optimized Mechanism for Virtual Appliances Provisioning and Management. *The Journal of Systems & Software* 84 (2011), pp. 377-387 (SCI : 728XG, Ei: 20110413627833)
- [27] Yin Ye, Zhihui Du and David A. Bader, Quan Yang and Weiwei Hu. GPUMemSort : A High Performance Graphic Co-Processors Sorting Algorithm for Large Scale In-Memory Data. *GSTF*

### Conference Papers

- [28] Wenjie Liu, Zhihui Du, Yu Xiao, David A. Bader, Chen Xu. A Waterfall Model to Achieve Energy Efficient Task Mapping for Large Scale GPU Clusters. International Heterogeneity in Computing Workshop. Anchorage (Alaska), USA, May 16, 2011, in conjunction with IPDPS 2011
- [29] Zhihui Du, Weiqiang Yang, Yinong Chen, Xin Sun, Xiaoying Wang, Chen Xu. Design of a Robot Cloud Center. The International Symposium on Autonomous Decentralized System (ISADS). Mar.23-27.,2011. Tokyo&Hiroshima, Japan.
- [30] Du, Zhihui; Yin, Zhaoming; Liu, Wenjie; Bader, David. On accelerating iterative algorithms with CUDA: A case study on conditional random fields training algorithm for biological sequence alignment. 2010 IEEE International Conference on Bioinformatics and Biomedicine Workshops, BIBMW 2010, p 543-548, 2010. (Ei: 20110913708899)
- [31] Wang, Xiaoying; Du, Zhihui; Liu, Xiaojing; Xie, Hui; Jia, Xuhan. An adaptive QoS management framework for VoD cloud service centers. ICCASM 2010 - 2010 International Conference on Computer Application and System Modeling, Proceedings, v 1, p V1527-V1532, 2010 (Ei: 20104913451793)
- [32] Wang, Xiaoying; Xie, Hui; Wang, Rui; Du, Zhihui; Jin, Li. Design and implementation of adaptive resource co-allocation approaches for cloud service environments. ICACTE 2010 - 2010 3rd International Conference on Advanced Computer Theory and Engineering, Proceedings, v 2, p V2484-V2488 (Ei: 20104613373933)

## 2010

### Journal Papers

- [33] Yunpeng Chai; Zhihui Du, Lifeng Sun. A Simulation System and Algorithm Evaluation for Clustered Streaming Media Server. CHINESE JOURNAL OF ELECTRONICS, 19 (1): 29-34 JAN 2010 (SCI:558AR; Ei: 20100812732851)
- [34] Feng Zhong, Zhihui Du and Xu Qian. "Design and Implementation of A Cluster Streaming Server Simulation System ". Journal of Chinese Computer System. Vol.31, No.4 2010, pp711-714. In Chinese.
- [35] Chai, Yunpeng ; Du, Zhihui ; Li, Sanli . Energy-efficient streaming media storage system with QoS guarantee. Qinghua Daxue Xuebao/Journal of Tsinghua University, v 50, n 1, p 71-74, January 2010 In Chinese (Ei: 20103413174120)

### Conference Papers

- [36] Zhihui Du, Wenjun Fan, Yunpeng Chai and Tianle Zhang. Online Random Seeking in FLV Video Based on File Cutting. 2010 2nd International Conference on Information and Multimedia Technology (ICIMT 2010). Hong Kong, v1:38-v1:42. December 28-30, 2010
- [37] Wang, Xiaoying; Du, Zhihui; Liu, Xiaojing; Xie, Hui; Jia, Xuhan. An adaptive QoS management framework for VoD cloud service centers. ICCASM 2010 - 2010 International Conference on Computer Application and System Modeling, Proceedings, v 1, p V1:527-V1:532, 2010. (Ei: 20104913451793)
- [38] Yin Ye, Zhihui Du and David A. Bader. GPUMemSort : A High Performance Graphic Co-Processors Sorting Algorithm for Large Scale In-Memory Data. International Conference on

Advances in Distributed and Parallel Computing. Pp:119-124. Nov.1-2, 2010, Singapore.

- [39] Zhihui Du, Yaohua Li, Xiaoyu Guo and Weijie Liu. CPU-GPU Collaborative Scheduling Algorithms. International Conference on Advances in Distributed and Parallel Computing. Pp:140-145. Nov.1-2, 2010, Singapore.
- [40] Zhihui Du, Wenjun Fan, Tianle Zhang, Yunpeng Chai. Online Random Seeking in FLV Video Based on File Cutting. 2010 2nd International Conference on Information and Multimedia Technology (ICIMT 2010). Hong Kong.pp:v1-38-v1-42.
- [41] Zhihui Du; Zhaoming Yin; D.A. Bader; A tile-based parallel Viterbi algorithm for biological sequence alignment on GPU with CUDA. Parallel & Distributed Processing, Workshops and Phd Forum (IPDPSW), 2010, Page(s): 1 – 8 (Ei: 20102613048009)
- [42] Yinong Chen; Zhihui Du; Marcos García-Acosta; Robot as a Service in Cloud Computing. Service Oriented System Engineering (SOSE), 2010 Fifth IEEE International Symposium on. 2010, Page(s): 151 – 158.(Ei : 20104713407234)
- [43] Wenjie Liu; Zhihui Du; Yinong Chen; Xudong Chai; Xiaoying Wang; On an Automatic Simulation Environment Customizing Services for Cloud Simulation Center. Service Oriented System Engineering (SOSE), 2010 Fifth IEEE International Symposium on. 2010, Page(s): 214 – 221 (Ei : 20104713407195)

## 2009

### Journal Papers

- [44] Zhihui Du; Man Wang; Yinong Chen; Yin Ye; Xudong Chai. The Triangular Pyramid Scheduling Model and algorithm for PDES in Grid. SIMULATION MODELLING PRACTICE AND THEORY, 17 (10): 1678-1689 NOV 2009(SCI:513RQ ; Ei: 20093912340791)
- [45] Yunpeng Chai, Zhihui Du, Yinong Chen. A stepwise optimization algorithm of clustered streaming media servers. JOURNAL OF SYSTEMS AND SOFTWARE, 82 (8): 1344-1361 Sp. Iss. SI AUG 2009 (SCI:489NA ; Ei: 20093212242585)
- [46] Kun Wang, Zhihui Du, Yinong Chen, and Sanli Li. V3COCA: An effective clustering algorithm for complicated objects and its application in breast cancer research and diagnosis. SIMULATION MODELLING PRACTICE AND THEORY, 17 (2): 454-470 FEB 2009 (SCI:402HW ; Ei: 20085211818047)

### Conference Papers

- [47] Xiaokang Liu; ; Zhihui Du; Yinong Chen; Meie Dai. An index clustering and mapping algorithm for large scale astronomical data searching. 2009 29th IEEE International Conference on Distributed Computing Systems Workshops (ICDCS Workshops), p 318-23, 2009
- [48] Yin Ye; Zhihui Du; Song Hao. Optimizing message passing programs based on task section duplication. 2009 IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA), p 673-8, 2009 (Ei: 20094712483821)
- [49] Hao, Song;; Du, Zhihui; Bader, David A.; Ye, Yin. A partition-merge based cache-conscious parallel sorting algorithm for CMP with shared cache. Proceedings of the International Conference on Parallel Processing, p 396-403, 2009, ICPP-2009 - The 38th International Conference on Parallel Processing(Ei: 20101712894696)

## 2008

### Journal Papers

- [50] Xiaoying Wang, Zhihui Du, Yinong Chen, Sanli Li. Modeling and Simulation of Virtualized Autonomic Service Centers. SIMULATION: Transactions of the Society for Modeling and

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