赵夏

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教育经历

博士 计算机科学工程, 根特大学, 2019

Dissertation: "Exploiting Application Diversity in Throughput Processors".

Supervisor: Prof. Lieven Eeckhout

硕士 计算机科学与技术, 国防科技大学, 2014.

 GPA: Top 2% 所有专业课程全 A.

 Dissertation: "GPU并行模拟与低开销片上互联网络设计".

 Supervisor: Prof. 王志英, Ass.Prof. 马胜

本科 计算机科学与技术, 华中科技大学, 2012.

 GPA: Top 5%

Research Interest

研究方向为计算机系统结构，重点在GPU体系结构设计，包括片上互联网络，Warp调度算法和Cache设计。现在，我重点关注如何有效的利用程序的多样性来优化GPU体系架构。

Research Experience

根特大学, 系统性能实验室

 研究助理, 2015九月–2019九月.

国防科学技术大学，计算机体系结构组

 研究助理, 2012九月–2015五月.

华中科技大学, 服务计算技术与系统教育部重点实验室

 研究助理, 2011九月–2012五月.

论文发表

会议论文

1. **Xia Zhao**, Almutaz Adileh, Zhibin Yu, Zhiying Wang, Aamer Jaleel, Lieven Eeckhout. Adaptive Memory-Side Last-Level GPU Caching. *46th International Symposium on Computer Architecture (ISCA)*, 2019 (HiPEAC论文奖), CCF-A类

2. **Xia Zhao**, Zhiying Wang, Lieven Eeckhout. Classification-Driven Search for Effective SM Partitioning in GPU Multitasking. *32nd ACM International Conference on Supercomputing (ICS)*, 2018, CCF-B类

3. Yuxi Liu, **Xia Zhao**, Magnus Jahre, Zhenlin Wang, Xiaolin Wang, Yingwei Luo, Lieven Eeckhout. Get Out of the Valley: Power-Efficient Address Mapping for GPUs. *45th International Symposium on Computer Architecture (ISCA)*, 2018 (HiPEAC论文奖), CCF-A类

4. Lu Wang, **Xia Zhao**, David Kaeli, Zhiying Wang, Lieven Eeckhout. Intra-Cluster Coalescing to Reduce GPU NoC Pressure. *32nd IEEE International Parallel & Distributed Processing Symposium (IPDPS)*, 2018, CCF-B类

5. Yuxi Liu, **Xia Zhao**, Zhibin Yu, Zhenlin Wang, Xiaolin Wang, Yingwei Luo, Lieven Eeckhout. BACM: Barrier-Aware Cache Management for Irregular Memory-Intensive GPGPU Workloads. *35th IEEE International Conference on Computer Design (ICCD)*, 2017, CCF-B类

6. Yuxi Liu, **Xia Zhao**, Zhibin Yu, Zhenlin Wang, Xiaolin Wang, Yingwei Luo, Lieven Eeckhout. BACM: Barrier-Aware Cache Management for Irregular Memory-Intensive GPGPU Workloads. *26th IEEE International Conference on Parallel Architectures and Compilation Techniques (PACT)*, 2017 (Poster), CCF-B类

7. Chen Li, Sheng Ma, Lu Wang, Zicong Wang, **Xia Zhao**, Yang Guo. DLL: A Dynamic Latency-Aware Load-Balancing Strategy in 2.5D NoC Architecture. *34th IEEE International Conference on Computer Design (ICCD)*, 2016, CCF-B类

8. **Xia Zhao**, Sheng Ma, Chen Li, Lieven Eeckhout, Zhiying Wang. (2016). A Heterogeneous Low-Cost and Low-Latency Ring-Chain Network for GPGPUs. *34th IEEE International Conference on Computer Design (ICCD)*, 2016, CCF-B类

9. **Xia Zhao**, Sheng Ma, Yuxi Liu, Lieven Eeckhout, Zhiying Wang. (2016). A Low-Cost Conflict-Free NoC for GPGPUs. *53rd Design Automation Conference (DAC)*, 2016 (HiPEAC论文奖), CCF-A类

10. **Xia Zhao**, Li Shen, Xin Liu, Zhiying Wang. (2014). Parallelization of GPU Simulator on Multi-core Platforms. *Advanced Computer Architecture (ACA)*, 2014 (最佳学生论文).

期刊论文

11. **Xia Zhao**, Sheng Ma, Zhiying Wang, Natalie Enright Jerger, Lieven Eeckhout. CD-Xbar: A Converge-Diverge Crossbar Network for High-Performance GPUs. *IEEE Transactions on Computers (TC)*, 2019 (Featured Paper of the month), CCF-A类

12. Lu Wang, **Xia Zhao**, David Kaeli, Zhiying Wang, Lieven Eeckhout. Intra-Cluster Coalescing to Reduce GPU NoC Pressure. *IEEE Transactions on Computers (TC)*, 2019, CCF-A类

13. **Xia Zhao**, Zhiying Wang, Lieven Eeckhout. HeteroCore GPU to Exploit TLP-Resource Diversity. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 2019, CCF-A类

14. Zhen Xu, **Xia Zhao**, Zhiying Wang, Canqun Yang. Application-aware NoC management in GPUs multitasking. *The Journal of Supercomputing*, 2019, CCF-C类

15. **Xia Zhao**, Yuxi Liu, Almutaz Adileh, Lieven Eeckhout. LA-LLC: Inter-Core Locality-Aware Last-Level Cache To Exploit Many-to-Many Traffic in GPGPUs. *IEEE Computer Architecture Letters (CALs)*, 2017

16. **Xia Zhao**, Sheng Ma, Wei Chen and Zhiying Wang. Exploiting Parallelism in the Simulation of GPGPU Program. *Journal of shanghai Jiaotong University (Science)*, 2015

基金与奖项

ACACES暑期学校Grant, HiPEAC, 2019

HiPEAC论文奖, HiPEAC, 2019

Featured Paper, IEEE Transactions on Computers, 2019

HiPEAC论文奖, HiPEAC, 2018

ACACES暑期学校Grant, HiPEAC, 2017

HiPEAC论文奖, HiPEAC, 2016

Special Research Fund, 根特大学, 2016

CSC 奖学金, 中国留学基金委, 2015

最佳学生论文, 中国计算机体系结构年会, 2014 (2/67)

国家二等奖, 中国研究生数学建模竞赛, 2013

优秀毕业生, 华中科技大学, 2012

国家励志奖学金, 华中科技大学, 2012 (2%)

国家奖学金, 华中科技大学, 2011 (1%)

三好学生, 华中科技大学, 2011

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