

Young Ik Eom

College of Computing and Informatics, Sungkyunkwan University

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1. PERSONAL INFORMATION:

OFFICE	Room 27314, 2 nd Engineering Building National Sciences Campus, 2066, Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do, Korea
PHONE	+82-31-290-7120
EMAIL	yeom@skku.edu
WEB	http://dclab.skku.ac.kr

2. EDUCATION:

03/1985 - 08/1991	Ph.D. in Dept. of Computer Science at Seoul National University (SNU)
03/1983 - 02/1985	M.S. in Dept. of Computer Science at Seoul National University (SNU)
03/1979 - 02/1983	B.S. in Dept. of Computer Science and Statistics at Seoul National University (SNU)

3. RESEARCH INTERESTS:

System Software, Operating System, File System, Storage System, Virtualization,
Distributed Computing, UX/UI Platform

4. TEACHING EXPERIENCE (2021-2015):

Spring 2021	Operating Systems, System Programming
Fall 2020	Operating Systems, System Programming, Distributed Systems
Spring 2020	Operating Systems, System Programming
Fall 2019	Operating Systems, System Programming, Advanced Operating System

Spring 2019	Operating Systems, System Programming, Distributed Systems
Fall 2018	
Spring 2018	System Programming
Fall 2017	
Spring 2017	Operating Systems
Fall 2016	Operating Systems, System Programming, Practices on Operating System
Spring 2016	Topics on Distributed Systems, Operating Systems
Fall 2015	Operating Systems, Advanced Operating Systems, Practices on Operating System, System Programming
Spring 2015	Topics on Distributed Systems, Operating Systems

5. WORK EXPERIENCE:

Now	Professor , College of Computing and Informatics, Sungkyunkwan University
Now – 2021	Vice-Chair , IEEE CTSoc MDT Technical Committee
2018	President of Korea Institute of Information Scientists and Engineers
2017	Executive Vice-President , Korea Institute of Information Scientists and Engineers (KIISE)
2017 - 2016	Dean , College of Software, Sungkyunkwan University
2016	Vice-President , Korea Institute of Information Scientists and Engineers (KIISE)
	Vice-President , Korea Institute of Information Security and Cryptology (KIISC)
2016 - 2015	Journal Development Committee Member , National Research Foundation, Korea (NRF)
2015 - 2013	Review Board Member , National Research Foundation of Korea (NRF)
2015 - 2010	Director , Fundamental and Elementary System Software Research Group, Sungkyunkwan University
2014	Vice-President , Korea Institute of Information Scientists and Engineers (KIISE)
2013	Chief Editor , Korea Information Processing Society (KIPS)
2012 - 2011	Vice-President , Korea Institute of Information Scientists and Engineers (KIISE)
2011 - 2009	Vice-President , Korea Association of University Information and Computer (KAUIC)
2011 - 2007	Provost , Information and Communications Division, Sungkyunkwan University
2010	Vice-Chair , Member Development Committee, Korea Institute of Information Scientists and Engineers (KIISE)
2010 - 2008	Committee Member , Information Promotion Committee, Gyeonggi-do, Korea
	Committee Member , Policy Consulting Committee, Suwon, Korea
2008	Vice-chair , Editorial Board of Korea Institute of Information Scientists and Engineers (KIISE)
2008 - 2007	Chief Editor , Korea Information Processing Society (KIPS)
2007 - 2006	Committee Member , Public-Private Joint Investigation Commission, Ministry of Information and Communication, Korea
2006	Director , Education Center for Mobile Communications, Sungkyunkwan University
2006 - 2004	Technical Expert , Academic-Industry Cooperation Council, Rural Development Administration, Korea (RDA)
2005	Technical Expert , u-Business Research Society, Korea Institute for Electronic Commerce
2005 - 2004	Editorial Director , Korea Institute of Information Security and Cryptology (KIISC)
2004	Innovation Cafe Opinion Leader , Small & Medium Business Corporation, Gyeonggi-do, Korea
2004 - 2002	Vice-chair , Information Promotion Committee, Suwon, Korea
2001 - 2000	Visiting Professor , Dept. of Information and Communication Science, Univ. of California, Irvine, USA
1996	Invited Research Assistant , Electronics and Telecommunications Research Institute, Korea (ETRI)
1995	Editor , Korea Information Science Society

6. STUDENT SUPERVISION (2021):

Ph.D. Students	Junghan Kim, Jonggyu Park, Yongju Song, Tae Hyung Lee
M.S. Students	Inyoung Lee, Sanghoon Yoo, Taehyung Kim, Hoyoung Lee, Hunseop Jung, Jeongho Lee

7. PROFESSIONAL ACTIVITIES:

Now - 2021	Vice-Chair , IEEE CTSoc MDT Technical Committee
2021 - 2018	Reviewer , BigComp2018-2021
2021 - 2017	Program Committee Member , IMCOM2021-2017
2016	Reviewer , IEEE Transactions on Computer
2015	Program Committee Member , CloudComp2015
	Program Committee Member , IMCOM2015
2014	Reviewer , Journal of Supercomputing
	Program Committee Member , IMCOM2015

8. SELECTED PUBLICATIONS (2021-2012):

8.1. Storage and Filesystems

- [C21] **Lightweight Application-Level Crash Consistency on Transactional Flash Storage.**
 - Changwoo Min, Woon-Hak Kang, Teasoo Kim, Sang-Won Lee, and Young Ik Eom.
 - In: *Proceedings of USENIX Annual Technical Conference (ATC)*, 2015.
- [J11] **Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices.**
 - Junghoon Kim, Changwoo Min, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 60.2, 2014.
- [J15] **Design and Implementation of a Log-Structured File System for Flash-Based Solid State Drives.**
 - Changwoo Min, Sang-Won Lee, and Young Ik Eom.
 - In: *IEEE Transactions on Computers*, 63.9, 2013.
- [C69] **SFS: Random Write Considered Harmful in Solid State Drives.**
 - Changwoo Min, Kangnyeon Kim, Hyunjin Cho, Sang-Won Lee and Young Ik Eom.
 - In: *Proceedings of USENIX Conference on File and Storage Technologies (FAST)*, 2012.

8.2. Operating Systems

- [J06] **Integrating Lock-free and Combining Techniques for a Practical and Scalable FIFO Queue.**
 - Changwoo Min and Young Ik Eom.
 - In: *IEEE Transactions on Parallel and Distributed Systems*, 26.7, 2015.
- [J07] **Dynamic Scheduling of Irregular Stream Programs toward Many-Core Scalability.**
 - Changwoo Min and Young Ik Eom.
 - In: *IEEE Transactions on Parallel and Distributed Systems*, 26.6, 2015.
- [C24] **M-CLOCK: Migration-optimized Page Replacement Algorithm for Hybrid DRAM and PCM Memory Architecture.**
 - Minho Lee, Dong Hyun Kang, Junghoon Kim, and Young Ik Eom.
 - In: *Proceedings of ACM/SIGAPPS Symposium on Applied Computing (SAC)*, 2015.
- [C37] **An Efficient Buffer Replacement Algorithm for NAND Flash Storage Devices.**
 - Dong Hyun Kang, Changwoo Min, and Young Ik Eom.
 - In: *Proceedings of IEEE International Symposium on Modelling, Analysis & Simulation of Computer and Telecommunication Systems (MASCOTS)*, 2014.
- [C52] **DANBI: Dynamic Scheduling of Irregular Stream Programs for Many-Core Systems.**
 - Changwoo Min and Young Ik Eom.
 - In: *Proceedings of ACM International Conference on Parallel Architectures and Compilation Techniques (PACT)*, 2013.

8.3. Virtualization

- [J02] **Power-efficient and High-performance Block I/O Framework for Mobile Virtualization Systems.**
 - Kihong Lee, Dongwoo Lee, Sungkil Lee, and Young Ik Eom.
 - In: *The Journal of Supercomputing*, 73.4, 2017.
- [J08] **Effective flash-based SSD caching for high performance home cloud server.**
 - Dongwoo Lee, Changwoo Min, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 61.2, 2015.
- [C20] **SELF: Improving Opportunity of Memory Sharing using VM Self-Hints in Virtualized Systems.**
 - Yeji Nam, Dongwoo Lee, and Young Ik Eom.
 - In: *Proceedings of ACM Asia-Pacific Workshop on Systems (APSys)*, 2015.

- [C22] **Improving Performance by Bridging the Semantic Gap between Multi-queue SSD and I/O Virtualization Framework.**
- Tae Yong Kim, Dong Hyun Kang, Dongwoo Lee, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Massive Storage Systems and Technologies (MSST)*, 2015.

8.4. UX/UI Platform

- [C13] **Software-based Single-node Multi-GPU Systems for Multiple Display Environments.**
- Junghan Kim, Inhyeok Kim, Taehyoung Kim, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2016.
- [C32] **NEMO SHELL Demo: Windowing System for Concurrent Applications on Multi-user Interactive Surfaces.**
- Junghan Kim, Inhyeok Kim, Taehyoung Kim, and Young Ik Eom.
 - In: *Proceedings of ACM Interactive Tabletops and Surfaces (ITS)*, 2014.

9. AWARDS (2021-2012):

- [A01] **Transaction-aware Data Cluster Allocation Scheme for Qcow2-based Virtual Disks.**
- Minho Lee and Young Ik Eom.
 - *IEEE International Conference on Big Data and Smart Computing.*
 - **Third Place Best Paper!**
- [A02] **FSLRU: A Page Cache Algorithm for Mobile Devices with Hybrid Memory Architecture.**
- Dong Hyun Kang and Young Ik Eom.
 - *2018 IEEE Transactions on Consumer Electronics Society Chester Sall Awards.*
 - **2017 Second Place Best Paper!**
- [A03] **Virtual Memory Partitioning for Enhancing Application Performance in Mobile Platforms.**
- Geunsik Lim, Changwoo Min, and Young Ik Eom.
 - *2016 IEEE Consumer Electronics Society Chester Sall Awards.*
 - **2015 First Place Best Paper!**
- [A04] **Power-efficient and High-performance Block I/O Framework for Mobile Virtualization Systems.**
- Kihong Lee, Dongwoo Lee, and Young Ik Eom.
 - *2015 ACM International Conference on Ubiquitous Information Management and Communication.*
 - **Best Paper!**
- [A05] **Can Lock-free and Combining Techniques Co-exist? A Novel Approach on Concurrent Queue.**
- Changwoo Min and Young Ik Eom.
 - *2013 International Conference on Parallel Architectures and Compilation Techniques.*
 - **2nd Place Award on ACM Student Research Competition!**
- [A06] **2010 11st Korea Software Award.**
- Inhyuck Kim Junghan Kim, Eun Hwan Shin and Young Ik Eom.
 - **Prime Minister Award!**
- [A07] **Ministry of Education Award (2005).**
- **Minister Award!**
- [A08] **The e+ Lecture of Sungkyunkwan University (2004).**
- **Best Teaching Award!**
- [A09] **National Tax Office (1997).**
- **National Tax Service Award!**

10. FULL LIST OF PUBLICATIONS (2021-2012):

10.1. Refereed International Journal

- [J01] **Efficient Single-pair All-shortest-path Query Processing for Massive Dynamic Networks.**
- Sun Geol Baek, Sungkil Lee, and Young Ik Eom.
 - In: *Information Sciences*, 546, 2021.
- [J02] **Thread Evolution Kit for Optimizing Thread Operations on CE/IoT Devices.**
- Geunsik Lim, Donghyun Kang, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 66.4, 2020.

- [J03] **Designing Transactional Hypervisor for Improving the Performance of Qcow2-based Virtual Disks.**
 - Minho Lee and Young Ik Eom.
 - In: *IEEE ACCESS*, 8, 2020.
- [J04] **Anti-Aging LFS: Self-Defragmentation With Fragmentation-Aware Cleaning.**
 - Jonggyu Park and Young Ik Eom.
 - In: *IEEE ACCESS*, 8, 2020.
- [J05] **Making Application-level Crash Consistency Practical on Flash Storage.**
 - Dong Hyun Kang, Changwoo Min, Sang-Won Lee, and Young Ik Eom.
 - In: *IEEE Transactions on Parallel and Distributed Systems*, 31.5, 2020.
- [J06] **LDJ: Version Consistency Is Almost Free on Commercial Storage Devices.**
 - Dong Hyun Kang, Sang-Won Lee, and Young Ik Eom.
 - In: *ACM Transactions on Storage*, 15.4, 2019.
- [J07] **NVRAM-aware Mapping Table Management for Flash Storage Devices.**
 - Jonggyu Park and Young Ik Eom.
 - In: *IEICE Transactions on Information and Systems*, E102-D.8, 2019.
- [J08] **URS: User-Based Resource Scheduling for Multi-User Surface Computing Systems.**
 - Jonggyu Park and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 65.3, 2019.
- [J09] **M-CLOCK: Migration-optimized Page Replacement Algorithm for Hybrid Memory Architecture.**
 - Minho Lee, Dong Hyun Kang, and Young Ik Eom.
 - In: *ACM Transactions on Storage*, 14.3, 2018.
- [J10] **SWAL: Fast and Efficient Write-Ahead Logging for Mobile Devices.**
 - Dong Hyun Kang, Woonhak Kang, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 64.3, 2018.
- [J11] **Efficient Graph Pattern Matching Framework for Network-Based In-Vehicle Fault Detection.**
 - Sun Geol Baek, Dong Hyun Kang, Sungkil Lee, and Young Ik Eom.
 - In: *Elsevier Journal of Systems and Software*, 140, 2018.
- [J12] **An Advanced SLC-buffering for TLC NAND Flash-based Storage.**
 - Kirock Kwon, Dong Hyun Kang, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 63.4, 2017.
- [J13] **DJFS: Providing Highly Reliable and High-performance File System with Small-Sized NVRAM.**
 - Junghoon Kim, Minho Lee, Yongju Song, Young Ik Eom.
 - In: *ETRI Journal*, 39.6, 2017.
- [J14] **Software-based Single-node Multi-GPU Systems for Interactive Display Wall.**
 - Inhyeok Kim, Junghan Kim, Jonggyu Park, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 63.2, 2017.
- [J15] **CLOCK-DNV: A Write Buffer Algorithm for Flash Storage Devices of Consumer Electronics.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 63.1, 2017.
- [J16] **Power-efficient and High-performance Block I/O Framework for Mobile Virtualization Systems.**
 - Kihong Lee, Dongwoo Lee, Sungkil Lee, and Young Ik Eom.
 - In: *The Journal of Supercomputing*, 73.4, 2017.
- [J17] **FSLRU: A Page Cache Algorithm for Mobile Devices with Hybrid Memory Architecture.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 62.2, 2016.
- [J18] **vCanal: Paravirtual Socket Library towards Fast Networking in Virtualized Environment.**
 - Dongwoo Lee and Young Ik Eom.
 - In: *IEICE Information and Systems*, E99-D.2, 2016.
- [J19] **Static Dalvik Bytecode Optimization for Android Applications.**
 - Jeehong Kim, Inhyeok Kim, Changwoo Min, Hyung Kook Jun, Soo Hyung Lee, Won-Tae Kim, and Young Ik Eom.
 - In: *ETRI Journal*, 37.2, 2015.
- [J20] **Integrating Lock-free and Combining Techniques for a Practical and Scalable FIFO Queue.**
 - Changwoo Min and Young Ik Eom.
 - In: *IEEE Transactions on Parallel and Distributed Systems*, 26.7, 2015.

- [J21] **Dynamic Scheduling of Irregular Stream Programs toward Many-Core Scalability.**
 - Changwoo Min and Young Ik Eom.
 - In: *IEEE Transactions on Parallel and Distributed Systems*, 26.6, 2015.
- [J22] **Effective flash-based SSD caching for high performance home cloud server.**
 - Dongwoo Lee, Changwoo Min, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 61.2, 2015.
- [J23] **Symbiotic Dynamic Memory Balancing for Virtual Machines in Smart TV Systems.**
 - Junghoon Kim, Taehun Kim, Changwoo Min, Hyung Kook Jun, Soo Hyung Lee, Won-Tae Kim, and Young Ik Eom.
 - In: *ETRI Journal*, 36.5, 2014.
- [J24] **Block Utilization-Aware Buffer Replacement Scheme for Mobile NAND Flash Storage.**
 - Dong Hyun Kang, Changwoo Min, and Young Ik Eom.
 - In: *IEICE Transactions on Information and Systems*, E97-D.9, 2014.
- [J25] **Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices.**
 - Junghoon Kim, Changwoo Min, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 60.2, 2014.
- [J26] **Zero-Sum Defender: Fast and Space-Efficient Defense against Return-Oriented Programming Attacks.**
 - Jeehong Kim, Inhyeok Kim, Changwoo Min, and Young Ik Eom.
 - In: *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, E97-A.1, 2014.
- [J27] **Virtual Memory Partitioning for Enhancing Application Performance in Mobile Platforms.**
 - Geunsik Lim, Changwoo Min, and Young Ik Eom.
 - In: *IEEE Transactions on Consumer Electronics*, 59.4, 2013.
- [J28] **Light-weight kernel instrumentation framework using dynamic binary translation.**
 - Dongwoo Lee, Inhyuk Kim, Jeehong Kim, Hyung Kook Jun, Won Tae Kim, Sang-Won Lee, and Young Ik Eom.
 - In: *Journal of Supercomputing*, 66.3, 2013.
- [J29] **Design and Implementation of a Log-Structured File System for Flash-Based Solid State Drives.**
 - Changwoo Min, Sang-Won Lee, and Young Ik Eom.
 - In: *IEEE Transactions on Computers*, 63.9, 2013.
- [J30] **The Page Cache Mechanism in Virtualized Systems.**
 - Seho Lee, Inhyeok Kim, Dongwoo Lee, and Young Ik Eom.
 - In: *International Journal of Control and Automation*, 6.1, 2013.
- [J31] **Scalable Cache-Optimized Concurrent FIFO Queue for Multicore Architectures.**
 - Changwoo Min, Hyung Kook Jun, Won Tae Kim, and Young Ik Eom.
 - In: *IEICE Transactions on Information and Systems*, 10, 2012.
- [J32] **VMMB: Virtual Machine Memory Balancing for Unmodified Operating Systems.**
 - Changwoo Min, Inhyuk Kim, Taehyung Kim, and Young Ik Eom.
 - In: *Journal of Grid Computing*, 10, 2012.

10.2. Refereed International Conference/Workshop

- [C01] **Partial Tiering: A Hybrid Merge Policy for Log Structured Key-Value Stores.**
 - Hoyoung Lee, Minho Lee, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2021.
- [C02] **Optimized Page Ownership Management for Guaranteeing the SLO of Buffered Writes.**
 - Kwonje Oh, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2021.
- [C03] **UQP: Re-Mapped NVMe Queue Path for Handling Urgent I/O Requests.**
 - Inyoung Lee, Yongju Song, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2021.
- [C04] **Towards Application-level I/O Proportionality with a Weight-aware Page Cache Management.**
 - Jonggyu Park, Kwonje Oh, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Massive Storage Systems and Technology (MSST)*, 2020.

- [C05] **H-BFQ: Supporting Multi-level Hierarchical Cgroup in BFQ Scheduler.**
 - Kwonje Oh, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2020.
- [C06] **Transaction-aware Data Cluster Allocation Scheme for Qcow2-based Virtual Disks.**
 - Minhoo Lee and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2020.
- [C07] **PollO: Polling-aware On-demand Governor for Improving Power Efficiency.**
 - Sungwoo Lee, Yongju Song, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2020.
- [C08] **VCPU Prioritization Interface for Improving the Performance of Latency-Critical Tasks.**
 - Taehyung Lee and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2020.
- [C09] **CPM: Container-aware Page Cache Management for Enhancing I/O Proportionality of Cgroups.**
 - Kwonje Oh, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of International Conference on Computer Design (ICCD)*, 2019.
- [C10] **VM-aware Flush Mechanism for Mitigating Inter-VM I/O Interference.**
 - Taehyung Lee, Minhoo Lee, and Young Ik Eom.
 - In: *Proceedings of Design, Automation and Test in Europe (DATE)*, 2019.
- [C11] **Overlit: New Storage Driver for Localization and Specialization.**
 - Inhyeok Kim, Kwon Je Oh and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2019.
- [C12] **Introspection of Virtual Machine Memory Resource in the Virtualized Systems.**
 - Minhoo Lee, Sujin Park, Yongju Song, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2019.
- [C13] **Performance Analyses on Logging Policies of Log-structured File System.**
 - Sungwoo Lee, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2019.
- [C14] **Weight-Based Page Cache Management Scheme for Enhancing I/O Proportionality of Cgroups.**
 - Daekyu Park, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2019.
- [C15] **HyPI: Reducing CPU Consumption of the I/O Completion Method in High-performance Storage Systems.**
 - Yongju Song and Young Ik Eom.
 - In: *Springer International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2019.
- [C16] **NV-Cleaning: An Efficient Segment Cleaning Scheme for a Log-Structured Filesystem with Hybrid Memory Architecture.**
 - Jonggyu Park and Young Ik Eom.
 - In: *Springer International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2019.
- [C17] **When Address Remapping Techniques Meet Consistency Guarantee Mechanisms.**
 - Dong Hyun Kang, Gihwan Oh, Dongki Kim, In Hwan Doh, Changwoo Min, Sang-Won Lee, and Young Ik Eom.
 - In: *Proceedings of USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage)*, 2018.
- [C18] **OFTL: Ordering-aware FTL for Maximizing Performance of the Journaling File System.**
 - Daekyu Park, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of ACM Annual Design Automation Conference (DAC)*, 2018.
- [C19] **Mitigating FLUSH Command Overhead in Flash Memory based Storage.**
 - Taehyung Lee, Minhoo Lee, and Young Ik Eom.
 - In: *Proceedings of USENIX Conference on File and Storage Technologies (FAST)*, Poster, 2018.

- [C20] **Retention Time based Data Management Policy for Improving the Lifespan of SSDs.**
 - Yongju Song, Miho Lee, and Young Ik Eom.
 - In: Proceedings of *IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2018.
- [C21] **iDiscard: Enhanced Discard() Scheme for Flash Storage Devices.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: Proceedings of *IEEE International Conference on Big Data and Smart Computing (BigComp)*, 2018.
- [C22] **Mitigating Write Interference on SSD in Home Cloud Server.**
 - Hyeji Lee, Minho Lee and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C23] **Optimizing Memory Swapping Scheme on the Memory Debugging Platform of CE Devices.**
 - Youngho Choi, Dong Hyun Kang, Jaesook Kwon, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C24] **User-based Resource Scheduling for Multi-user Surface Computing Systems.**
 - Hwan Kim, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C25] **The Minimal-Effort Write I/O Scheduler for Flash-based Storage Devices.**
 - Daekyu Park, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C26] **Efficient Data Cluster Management Scheme for Qcow2-based Virtual Disk in Home Cloud Server.**
 - Minho Lee and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C27] **Lazy TRIM: Optimizing the Journaling Overhead Caused by TRIM commands on Ext4 File System.**
 - Kitae Lee, Dong Hyun Kang, Daeho Jeong, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2018.
- [C28] **Grouping Applications Using Geometrical Information of Applications on Tabletop Systems.**
 - Jonggyu Park, Inhyeok Kim, and Young Ik Eom.
 - In: *Proceedings of ACM User Interface Software and Technology Symposium (UIST)*, Poster, 2017.
- [C29] **TO FLUSH or NOT: Zero Padding in the File System with SSD Devices.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: Proceedings of *ACM Asia-Pacific Workshop on Systems (APSYS)*, 2017.
- [C30] **Optimizing L2P Mapping of NAND Flash Storage based on Hybrid Memory Architecture.**
 - Sung Kyun Lee, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of USENIX Conference on File and Storage Technologies (FAST)*, Poster, 2017.
- [C31] **Dynamic Hot-Cold Separation Scheme on the Log-structured File System for CE Devices.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2017.
- [C32] **An Advanced TRIM Command for Extending Lifetime of TLC NAND Flash-based Storage.**
 - Kirock Kwon, Dong Hyun Kang, Jonggyu Park, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2017.
- [C33] **CoW Link: Duplicated Data Block Management Scheme for Multi-user Consumer Electronics Devices.**
 - Sung Jae Park, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2017.
- [C34] **An Insightful Write Buffer Scheme for Improving SSD Performance in Home Cloud Server.**
 - Minhoon Yi, Minho Lee, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2017.
- [C35] **CFFQ: I/O Scheduler for Providing Fairness and High Performance in SSD Environments.**
 - Minhoon Yi, Minho Lee, and Young Ik Eom.
 - In: *Proceedings of ACM International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2017.

- [C36] **Improving Read Performance by Isolating Multiple Queues in NVMe SSDs.**
 - Minkyong Lee, Dong Hyun Kang, Minhoo Lee, and Young Ik Eom.
 - In: *Proceedings of ACM International Conference on Ubiquitous Information Management and Communication (IMCOM)*, 2017.
- [C37] **A Lightweight Pseudo CPU Hotplug Mechanism for Mobile Devices.**
 - Kyoung Don Jang, Dong Hyun Kang, Do Hyoung Kim, Hyun Jin Park, and Young Ik Eom.
 - In: *Proceedings of International Conference on Next Generation Mobile Applications, Security and Technologies (NGMAST)*, 2016.
- [C38] **File Defragmentation Scheme for a Log-Structured File System.**
 - Jonggyu Park, Dong Hyun Kang, and Young Ik Eom.
 - In: *Proceedings of ACM Asia-Pacific Workshop on Systems (APSys)*, 2016.
- [C39] **Improve Productivity through Reducing MBT Application Time Using Multi Bad Block Management DFT.**
 - Hyun Sung and Young Ik Eom.
 - In: *Proceedings of the Electrochemical Society*, Poster, 2016.
- [C40] **Understanding the Behaviors of Discard Command in both the Filesystem and the Flash-based Storage Layer.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: *Proceedings of USENIX Conference on File and Storage Technologies (FAST)*, Poster, 2016.
- [C41] **FS-LRU: A Page Cache Algorithm for Eliminating Fsync Write on Mobile Devices.**
 - Dong Hyun Kang and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2016.
- [C42] **Software-based Single-node Multi-GPU Systems for Multiple Display Environments.**
 - Junghan Kim, Inhyeok Kim, Taehyoung Kim, and Young Ik Eom.
 - In: *Proceedings of IEEE International Conference on Consumer Electronics (ICCE)*, 2016.
- [C43] **Hybrid Write Buffer Algorithm for Improving Performance and Endurance of NAND Flash Storages.**
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