

## 1. Synchronization (nowe!)

- <https://arxiv.org/abs/1810.05600>  
<https://arxiv.org/pdf/1810.05600.pdf>  
Compact NUMA-aware Locks, Dave Dice, Alex Kogan, Oracle labs, 2019

## 2. RCU

- <https://www.youtube.com/watch?v=hZX1aokdNiY>  
RCU's First-Ever CVE, and How I Lived to Tell the Tale, Paul McKanney, 2019, Linux Conf  
(CVE, short for Common Vulnerabilities and Exposures, is a list of publicly disclosed computer security flaws)

## 3. RCU

- <https://pdos.csail.mit.edu/6.828/2019/readings/rcu-decade-later.pdf>  
RCU Usage In the Linux Kernel: One Decade Later
- <http://www2.rdrop.com/users/paulmck/RCU/RCU.2018.11.21c.PSU-full.pdf>  
What Is RCU?
- <http://www.rdrop.com/users/paulmck/RCU/>  
RCU web page by Paul E. McKenney

## 4. Artykuły z 2020 USENIX Annual Technical Conference (podaję kilka przykładowych, ale w materiałach z konferencji jest dużo innych ciekawych, właściwie każdy się nadaje do prezentacji)

<https://www.usenix.org/conference/atc20/technical-sessions>  
[https://2459d6dc103cb5933875-c0245c5c937c5dedcca3f1764ecc9b2f.ssl.cf2.rackcdn.com/atc20\\_full\\_proceedings.pdf](https://2459d6dc103cb5933875-c0245c5c937c5dedcca3f1764ecc9b2f.ssl.cf2.rackcdn.com/atc20_full_proceedings.pdf)

- <https://www.usenix.org/conference/atc20/presentation/bittman> (best presentation)  
Twizzler: a Data-Centric OS for Non-Volatile Memory
- <https://www.usenix.org/conference/atc20/presentation/keynote-miller>  
The Future of the Past: Challenges in Archival Storage
- <https://www.usenix.org/conference/atc20/presentation/gouicern>  
Fewer Cores, More Hertz: Leveraging High-Frequency Cores in the OS Scheduler for Improved Application Performance
- <https://www.usenix.org/conference/atc20/presentation/zhu-weixi>  
A Comprehensive Analysis of Superpage Management Mechanisms and Policies
- <https://www.usenix.org/conference/atc20/presentation/al-maruf> (best paper)  
Effectively Prefetching Remote Memory with Leap

## 5. FAST'2020, Proceedings of the 18th USENIX Conference on File and Storage Technologies

<https://www.usenix.org/conference/fast20/technical-sessions>  
[https://www.usenix.org/sites/default/files/fast20\\_full-proceedings.pdf](https://www.usenix.org/sites/default/files/fast20_full-proceedings.pdf)

Wiele ciekawych prac, przykładowo:

- <https://www.usenix.org/conference/fast20/presentation/zhan>  
How to Copy Files
- <https://www.usenix.org/conference/fast20/presentation/he>  
Read as Needed: Building WiSER, a Flash-Optimized Search Engine
- <https://www.usenix.org/conference/fast20/presentation/maneas> (best paper)  
A Study of SSD Reliability in Large Scale Enterprise Storage Deployments
- <https://www.usenix.org/conference/fast20/presentation/lu>  
Making Disk Failure Predictions SMARTer!
- <https://www.usenix.org/conference/fast20/presentation/wang-ao>  
InfiniCache: Exploiting Ephemeral Serverless Functions to Build a Cost-Effective Memory Cache
- <https://www.usenix.org/conference/fast20/presentation/kumar>  
Quiver: An Informed Storage Cache for Deep Learning
- <https://www.usenix.org/conference/fast20/presentation/ganesan> (best paper)  
Strong and Efficient Consistency with Consistency-Aware Durability

## 6. EUROSYS 2020

<https://www.eurosys2020.org/program-2/accepted-papers/>

Wiele ciekawych prac, przykładowo

- Don't shoot down TLB shootdowns! (best paper)  
<https://dl.acm.org/doi/abs/10.1145/3342195.3387518>

## 7. Co nowego w jądrze Linuksa

<https://lwn.net/Kernel/>

## 8. Artykuły z 2019 USENIX Annual Technical Conference (podaję kilka przykładowych, ale w materiałach z konferencji jest dużo innych ciekawych, właściwie każdy się nadaje do prezentacji)

<https://www.usenix.org/conference/atc19/technical-sessions>

<https://www.usenix.org/sites/default/files/atc19-full-proceedings.pdf>

- Everyone Loves File: File Storage Service (FSS) in Oracle Cloud Infrastructure
- Not So Fast: Analyzing the Performance of WebAssembly vs . Native Code
- Extension Framework for File Systems in User space
- FlexGroup Volumes: A Distributed WAFL File System
- Effective Static Analysis of Concurrency Use-After-Free Bugs in Linux Device Drivers
- LXDs: Towards Isolation of Kernel Subsystems
- Multi-Queue Fair Queuing
- BRAVO – Biased Locking for Reader-Writer Locks
- Asynchronous I/O Stack: A Low-latency Kernel I/O Stack for Ultra-Low Latency SSDs

- Data Domain Cloud Tier: Backup here, backup there, deduplicated everywhere!
- GAIA: An OS Page Cache for Heterogeneous Systems
- ElasticBF: Elastic Bloom Filter with Hotness Awareness for Boosting Read Performance in Large Key-Value Stores
- Lessons and Actions: What We Learned from 10K SSD-Related Storage System Failures

## 9. Propozycje Andrzeja Jackowskiego (9Livesdata)

Wydaje mi się, że najlepiej na seminarium nadaje się publikacja o której nie mówiłem, czyli "Orion: A Distributed File System for Non-Volatile Main Memory and RDMA-Capable Networks" (<https://www.usenix.org/conference/fast19/presentation/yang>).

Z pozostałymi publikacjami jest trochę taki problem, że ciężko będzie o nich ciekawie mówić nawet przez 45 minut. Ale jeśli ktoś będzie chciał poszukać podobnych publikacji i opowiedzieć o czymś więcej niż jednym artykule, to dobrymi kandydatami są moim zdaniem:

"INSTalytics: Cluster Filesystem Co-design for Big-data Analytics"

(<https://www.usenix.org/conference/fast19/presentation/sivathanu>) - tutaj detale są nietrywialne i można ciekawie zahaczyć o istniejące systemy BigData (np. Hadoop, Spark)

"Automatic, Application-Aware I/O Forwarding Resource Allocation"

(<https://www.usenix.org/conference/fast19/presentation/ji>) - sam artykuł może nie był super ciekawy, ale opowiada o komputerze stojącym na podium listy Top500. Jest to dobra podstawa do fajnej prezentacji o superkomputerach.

"GearDB: A GC-free Key-Value Store on HM-SMR Drives with Gear Compaction"

(<https://www.usenix.org/conference/fast19/presentation/yao>) - z jednej strony dotyczy SMR dysków, które moim zdaniem są ciekawe koncepcyjnie, z drugiej strony dotyka struktur danych LogStructuredMergeTree-podobnych.

## 10. FAST'2019, Proceedings of the 17th USENIX Conference on File and Storage Technologies

<https://www.usenix.org/conference/fast19/technical-sessions>

<https://www.usenix.org/sites/default/files/fast19-full-proceedings.pdf>

Wiele ciekawych prac, przykładowo:

- Design Tradeoffs for SSD Reliability
- ScaleCheck: A Single-Machine Approach for Discovering Scalability Bugs in Large Distributed Systems

## 11. Prace z Research at Google, Distributed Systems and Parallel Computing

<https://research.google/research-areas/distributed-systems-and-parallel-computing/>

Zdecydowana większość prac bardzo dobrze pasuje do tematyki seminarium, oczywiście lepsze są te najnowsze, z ostatniego roku. Przykładowo:

- <https://research.google/pubs/pub49174/>  
Autopilot: Workload Autoscaling at Google Scale
- <https://research.google/pubs/pub49065/>  
Borg: the Next Generation
- <https://ai.google/research/pubs/pub48000>  
Designing and Operating Highly Available Software Systems at Scale
- <https://research.google/pubs/pub48413/>  
Code coverage at Google
- <https://research.google/pubs/pub48392/>  
The DevOps Phenomenon

**12. Marteen van Steen (University of Twente)**

<https://www.distributed-systems.net/index.php/research/217-2/>

<https://www.distributed-systems.net/index.php/research/current-projects/>

**13. Andrew Tanenbaum (Vrije Universiteit, retired)**

<http://www.cs.vu.nl/~ast/Publications/index.html#papers>

**14. The Redmond Distributed Systems Research Group**

<https://www.microsoft.com/en-us/research/group/systems-research-group-redmond/>

**15. Microsoft Research Systems & Networking Publications**

<https://www.microsoft.com/en-us/research/research-area/systems-and-networking/>