































- [46] Cristiano Giuffrida, Anton Kuijsten, and Andrew S. Tanenbaum. 2012. Enhanced Operating System Security Through Efficient and Fine-grained Address Space Randomization. In *Presented as part of the 21st USENIX Security Symposium (USENIX Security 12)*. USENIX, Bellevue, WA, 475–490. <https://www.usenix.org/conference/usenixsecurity12/technical-sessions/presentation/giuffrida>
- [47] Hermann Härtig, Michael Hohmuth, Jochen Liedtke, Jean Wolter, and Sebastian Schönberg. 1997. The Performance of  $\mu$ -kernel-based Systems. In *Proceedings of the Sixteenth ACM Symposium on Operating Systems Principles (SOSP '97)*. ACM, New York, NY, USA, 66–77. <https://doi.org/10.1145/268998.266660>
- [48] Jin Heo, X. Zhu, P. Padala, and Z. Wang. 2009. Memory overbooking and dynamic control of Xen virtual machines in consolidated environments. In *2009 IFIP/IEEE International Symposium on Integrated Network Management*. 630–637. <https://doi.org/10.1109/INM.2009.5188871>
- [49] Galen Hunt, Mark Aiken, Manuel Fähndrich, Chris Hawblitzel, Orion Hodson, James Larus, Steven Levi, Bjarne Steensgaard, David Tarditi, and Ted Wobber. 2007. Sealing OS Processes to Improve Dependability and Safety. In *Proceedings of the 2Nd ACM SIGOPS/EuroSys European Conference on Computer Systems 2007 (EuroSys '07)*. ACM, New York, NY, USA, 341–354. <https://doi.org/10.1145/1272996.1273032>
- [50] Galen C. Hunt and James R. Larus. 2007. Singularity: Rethinking the Software Stack. *SIGOPS Oper. Syst. Rev.* 41, 2 (April 2007), 37–49. <https://doi.org/10.1145/1243418.1243424>
- [51] Bilgin Ibryam. 2017. Principles of Container-Based Application Design. *Redhat Consulting Whitepaper* (2017). <https://www.redhat.com/en/resources/cloud-native-container-design-whitepaper>
- [52] Sandra K Johnson, Gerrit Huizenga, and Badari Pulavarty. 2005. *Performance Tuning for Linux Servers*. IBM.
- [53] Avi Kivity, Dor Laor, Glauber Costa, Pekka Enberg, Nadav Har'El, Don Marti, and Vlad Zolotarov. 2014. OSv: Optimizing the Operating System for Virtual Machines. In *Proceedings of the 2014 USENIX Conference on USENIX Annual Technical Conference (USENIX ATC'14)*. USENIX Association, Berkeley, CA, USA, 61–72. <http://dl.acm.org/citation.cfm?id=2643634.2643642>
- [54] R. Krishnamurthy and G. N. Rouskas. 2015. On the impact of scheduler settings on the performance of multi-threaded SIP servers. In *2015 IEEE International Conference on Communications (ICC)*. 6175–6180. <https://doi.org/10.1109/ICC.2015.7249307>
- [55] Nicolas Lacasse. 2018. Open-sourcing gVisor, a sandboxed container runtime. <https://cloudplatform.googleblog.com/2018/05/Open-sourcing-gVisor-a-sandboxed-container-runtime.html>
- [56] I. M. Leslie, D. McAuley, R. Black, T. Roscoe, P. Barham, D. Evers, R. Fairbairns, and E. Hyden. 2006. The Design and Implementation of an Operating System to Support Distributed Multimedia Applications. *IEEE J.Sel. A. Commun.* 14, 7 (Sept. 2006), 1280–1297. <https://doi.org/10.1109/49.536480>
- [57] Moritz Lipp, Michael Schwarz, Daniel Gruss, Thomas Prescher, Werner Haas, Stefan Mangard, Paul Kocher, Daniel Genkin, Yuval Yarom, and Mike Hamburg. 2018. Meltdown. *ArXiv e-prints* (Jan. 2018). arXiv:1801.01207
- [58] Anil Madhavapeddy, Richard Mortier, Charalampos Rotsos, David Scott, Balraj Singh, Thomas Gazagnaire, Steven Smith, Steven Hand, and Jon Crowcroft. 2013. Unikernels: Library Operating Systems for the Cloud. In *Proceedings of the Eighteenth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS '13)*. ACM, New York, NY, USA, 461–472. <https://doi.org/10.1145/2451116.2451167>
- [59] Toshiyuki Maeda. 2003. Kernel Mode Linux. <https://www.linuxjournal.com/article/6516>
- [60] Filipe Manco, Costin Lupu, Florian Schmidt, Jose Mendes, Simon Kuenzer, Sumit Sati, Kenichi Yasukata, Costin Raiciu, and Felipe Huici. 2017. My VM is Lighter (and Safer) Than Your Container. In *Proceedings of the 26th Symposium on Operating Systems Principles (SOSP '17)*. ACM, New York, NY, USA, 218–233. <https://doi.org/10.1145/3132747.3132763>
- [61] Joao Martins, Mohamed Ahmed, Costin Raiciu, Vladimir Olteanu, Michio Honda, Roberto Bifulco, and Felipe Huici. 2014. ClickOS and the Art of Network Function Virtualization. In *Proceedings of the 11th USENIX Conference on Networked Systems Design and Implementation (NSDI'14)*. USENIX Association, Berkeley, CA, USA, 459–473. <http://dl.acm.org/citation.cfm?id=2616448.2616491>
- [62] Sam Newman. 2015. *Building microservices: designing fine-grained systems*. " O'Reilly Media, Inc."
- [63] Pradeep Padala, Kai-Yuan Hou, Kang G. Shin, Xiaoyun Zhu, Mustafa Uysal, Zhikui Wang, Sharad Singhal, and Arif Merchant. 2009. Automated Control of Multiple Virtualized Resources. In *Proceedings of the 4th ACM European Conference on Computer Systems (EuroSys '09)*. ACM, New York, NY, USA, 13–26. <https://doi.org/10.1145/1519065.1519068>
- [64] Donald E. Porter, Silas Boyd-Wickizer, Jon Howell, Reuben Olinsky, and Galen C. Hunt. 2011. Rethinking the Library OS from the Top Down. In *Proceedings of the Sixteenth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS XVI)*. ACM, New York, NY, USA, 291–304. <https://doi.org/10.1145/1950365.1950399>
- [65] O. Purdila, L. A. Grijincu, and N. Tapus. 2010. LKL: The Linux kernel library. In *9th RoEduNet IEEE International Conference*. 328–333.
- [66] Dan Schatzberg, James Cadden, Han Dong, Orran Krieger, and Jonathan Appavoo. 2016. EbbRT: A Framework for Building Per-Application Library Operating Systems. In *12th USENIX Symposium on Operating Systems Design and Implementation (OSDI 16)*. USENIX Association, GA, 671–688. <https://www.usenix.org/conference/osdi16/technical-sessions/presentation/schatzberg>
- [67] Stephen Soltesz, Herbert Pötzl, Marc E. Fuczynski, Andy Bavier, and Larry Peterson. 2007. Container-based Operating System Virtualization: A Scalable, High-performance Alternative to Hypervisors. In *Proceedings of the 2nd ACM SIGOPS/EuroSys European Conference on Computer Systems 2007 (EuroSys '07)*. ACM, New York, NY, USA, 275–287. <https://doi.org/10.1145/1272996.1273025>
- [68] Michael M. Swift, Brian N. Bershad, and Henry M. Levy. 2003. Improving the Reliability of Commodity Operating Systems. In *Proceedings of the Nineteenth ACM Symposium on Operating Systems Principles (SOSP '03)*. ACM, New York, NY, USA, 207–222. <https://doi.org/10.1145/945445.945466>
- [69] Chia-Che Tsai, Kumar Saurabh Arora, Nehal Bandi, Bhushan Jain, William Jannen, Jitin John, Harry A. Kalodner, Vrushali Kulkarni, Daniela Oliveira, and Donald E. Porter. 2014. Cooperation and Security Isolation of Library OSes for Multi-process Applications. In *Proceedings of the Ninth European Conference on Computer Systems (EuroSys '14)*. ACM, New York, NY, USA, Article 9, 14 pages. <https://doi.org/10.1145/2592798.2592812>
- [70] Robert Wahbe, Steven Lucco, Thomas E. Anderson, and Susan L. Graham. 1993. Efficient Software-based Fault Isolation. In *Proceedings of the Fourteenth ACM Symposium on Operating Systems Principles (SOSP '93)*. ACM, New York, NY, USA, 203–216. <https://doi.org/10.1145/168619.168635>
- [71] Dan Williams, Hani Jamjoom, and Hakim Weatherspoon. 2012. The Xen-Blanket: Virtualize Once, Run Everywhere. In *Proceedings of the 7th ACM European Conference on Computer Systems (EuroSys '12)*. ACM, New York, NY, USA, 113–126. <https://doi.org/10.1145/2168836.2168849>