

OVERVIEW

Balakrishnan Chandrasekaran (b.chandrasekaran@vu.nl)

Publications

- “DChannel: Accelerating Mobile Applications With Parallel High-bandwidth and Low-latency Channels,” W. Sentosa, B. Chandrasekaran, B. Godfrey, H. Hassanieh, and B. Maggs, *In Proceedings of the 20th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, April 2023.
- “Hop-On Hop-Off Routing: A Fast Tour across the Optical Data Center Network for Latency-Sensitive Flows,” J. Li, Y. Lei, F. De Marchi, R. Joshi, B. Chandrasekaran, and Y. Xia, *In Proceedings of the 6th Asia-Pacific Workshop on Networking (APNet)*, July 2022.
- “Calibrating the Performance and Security of Blockchains via Information Propagation Delays,” J. Fechner, B. Chandrasekaran, and M. X. Makkes, *In Proceedings of the ACM/SIGAPP Symposium on Applied Computing (SAC)*, April 2022.
- “cISP: A Speed-of-Light Internet Service Provider,” D. Bhattacharjee, W. Aqeel, S. A. Jyothi, I. N. Bozkurt, W. Sentosa, M. Tirmazi, A. Aguirre, B. Chandrasekaran, P. B. Godfrey, G. Laughlin, B. M. Maggs, and A. Singla, *In Proceedings of the 19th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, April 2022.
- “VOXEL: Cross-layer Optimization for Video Streaming with Imperfect Transmission,” M. Palmer, M. Appel, K. Spiteri, B. Chandrasekaran, A. Feldmann, and R. K. Sitaraman, *In Proceedings of the ACM Conference on emerging Networking Experiments and Technologies (CoNEXT)*, December 2021.
- “Selfish & Opaque Transaction Ordering in the Bitcoin Blockchain: The Case for Chain Neutrality,” J. Messias, M. Alzayat, B. Chandrasekaran, K. P. Gummadi, P. Loiseau, and A. Mislove, *In Proceedings of the ACM Internet Measurement Conference (IMC)*, November 2021.
- “Tardis: A fault-tolerant design for network control planes,” Zhenyu. Zhou, T. A. Benson, M. Canini, and B. Chandrasekaran, *In Proceedings of the ACM Symposium on SDN Research (SOSR)*, September 2021.
- “Understanding the Security Implications of Kubernetes Networking,” F. Minna, A. Blaise, F. Rebecchi, B. Chandrasekaran, and F. Massacci, *IEEE Security & Privacy*, September/October 2021.
- “AnyOpt: Predicting and Optimizing IP Anycast Performance,” X. Zhang, T. Sen, Z. Zhang, T. April, B. Chandrasekaran, D. Choffnes, B. M. Maggs, H. Shen, R. K. Sitaraman, and X. Yang, *In Proceedings of the Annual Conference of the ACM Special Interest Group on Data Communication on the Applications, Technologies, Architectures, and Protocols for Computer Communication (SIGCOMM)*, August 2021.
- “Puncturable Pseudorandom Sets and Private Information Retrieval with Near-Optimal Online Bandwidth and Time,” E. Shi, W. Aqeel, B. Chandrasekaran, and B. Maggs, *In Advances in Cryptology – CRYPTO*, August 2021.

Service

Community: Program Committee Member

- ACM Cloud Computing Security Workshop (CCSW) 2021
- International Workshop on Edge Systems, Analytics and Networking (EdgeSys) 2022
- ACM Internet Measurement Conference (IMC) 2021 & 2022
- USENIX Symposium on Networked Systems Design and Implementation (NSDI) 2024
- Passive and Active Measurement Conference (PAM) 2020 & 2021
- International Symposium on Research in Attacks, Intrusions and Defenses (RAID) 2021 & 2022
- ACM Symposium on SDN Research (SOSR) 2022
- International Conference on Traffic Monitoring and Analysis (TMA) 2022
- VU: Bachelor’s and Master’s Project Coordination, and VU-India Outreach 2021, 2022

Teaching

- Introduction to Computer Science [Undergrad. level], with Lin Wang Period 1, 2022
- Network Security [Grad. level], with Herbert Bos Period 2, 2022, 2021
- Systems Seminar [Grad. level], with Animesh K. Trivedi Period 4, 2023

Advising

- Ph.D.** Saideh Ahangary (co-advised with Klaus von Gleissenthall); Krijn Doekemeijer (co-advised with Animesh K. Trivedi); Mirko R. Palmer & Emilia N. Weyulu (co-advised with Anja Feldmann at MPI-INF)
- M.Sc.** Emmanouil Chalkiadakis, Max van Hasselt, Max Raams
- B.Sc.** Julius A.R. Fechner, Eduardo Lira Cossio, Zakhar Zhornovyi, Damla Ural, Donghui Ma