## Klaus v. Gleissenthall

### February 2023

Email k.freiherrvongleissenthal@vu.nl Web https://gleissen.github.io/

#### Education

| Jun 2012 - Sep 2016     | Ph.D. in Computer Science | Technische Universität München (TUM) |
|-------------------------|---------------------------|--------------------------------------|
| Oct 2009 - Jun 2012     | M.Sc. in Computer Science | TUM                                  |
| Sep $2009$ - Feb $2010$ | Exchange semester         | University of Paris 7                |
| Oct 2006 - Oct 2009     | B.Sc. in Computer Science | TUM                                  |

### Work Experience and Academic Visits

| Oct 2020 -            | Tenure Track Assistant Professor, Vrije Universiteit (VU) Amsterdam |
|-----------------------|---|
| March 2016- Oct 2020  | Post-doc University of California, San Diego                        |
| Jan 2014 - $Feb 2016$ | Visitor Mircosoft Research, Cambridge                               |
| Nov 2013 - Jan 2014   | Internship Microsoft Research, Cambridge                            |
| Dec 2010 - Aug 2011   | Research Assistent at TUM, Autonomous Systems Group                 |

#### **Publications**

Don't Look UB: Exposing Sanitizer-Eliding Compiler Optimizations. With Rapahel Isemann, Cristiano Giuffrida, Herbert Bos, and Erik van der Kouwe. Conditionally accepted. **PLDI'23**.

Randomized Testing of Byzantine Fault Tolerant Algorithms. Levin Winter, Florena Buse, Daan de Graaf Klaus v. Gleissenthall, , Burcu Kulahcioglu Ozkan. **OOPSLA'23**.

Refinement Types for Hardware.

Robin Webbers, Klaus v. Gleissenthall. LATTE'22.

Solver-Aided Constant-Time Hardware Verification. <u>Klaus v. Gleissenthall</u>, Rami Gokhan Kici, Deian Stefan and Ranjit Jhala. **CCS'21**.

Automatically Eliminating Speculative Leaks from Cryptographic Code with Blade.

Marco Vassena, Craig Disselkoen, <u>Klaus v. Gleissenthall</u>, Sunjay Cauligi, Rami Gokhan Kici, Ranjit Jhala, Dean Tullsen, Deian Stefan. **Distinguished Paper Award. POPL'21**.

Towards Constant-Time Foundations for the New Spectre Era.

Sunjay Cauligi, Craig Disselkoen, Klaus v. Gleissenthall, Dean Tullsen, Deian Stefan, Tamara Rezk, Gilles Barthe. Honorable mention, Intel hardware security award. PLDI'20.

IODINE: Verifying Constant-Time Execution of Hardware.

Klaus v. Gleissenthall, Rami Gokhan Kici, Deian Stefan and Ranjit Jhala. Usenix Security'19.

Pretend Synchrony: Synchronous Verification of Asynchronous Distributed Programs.

Klaus v. Gleissenthall, Rami Gokhan Kici, Alexander Bakst, Deian Stefan and Ranjit Jhala. POPL'19.

Verifying Distributed Programs via Canonical Sequentialization.

Alexander Bakst, Klaus v. Gleissenthall, Rami Gokhan Kici and Ranjit Jhala. OOPSLA'17.

Cardinalities and universal quantifiers for verifying parameterized systems.

Klaus v. Gleissenthall, Nikolaj Bjorner and Andrey Rybalchenko. PLDI'16.

Symbolic Polytopes for Quantitative Interpolation and Verification.

Klaus v. Gleissenthall, Boris Köpf and Andrey Rybalchenko. CAV'15.

An Epistemic Perspective on Consistency of Concurrent Computations.

Klaus v. Gleissenthall, Andrey Rybalchenko. CONCUR'13.

## Awards and Honours

| 2021 | Finalist, Intel Hardware Security Award |
|------|---|
| 2021 | Distinguished Paper Award, POPL         |
| 2016 | PhD, summa cum laude, TUM               |
| 2012 | Microsoft Research Studentship          |
| 2012 | Master with high distinction, TUM       |

## Conference, Invited Seminar and Workshop Talks

| Jun, 2021            | UIUC Security Seminar               | Jun, 2020            | VU Amsterdam                               |
|----------------------|-------------------------------------|----------------------|--|
| Jun, 2020            | MPI SP                              | Apr, 2020            | University of Edinburgh                    |
| Apr, 2020            | Microsoft Resarch Cambridge         | Mar, 2020            | NYU, New York                              |
| Feb, 2020            | EPFL, Lausanne                      | Oct 2019             | MPI-SWS, Kaiserslautern                    |
| Aug 2019             | Usenix Security, Santa Clara        | June 2019            | VDS, Marrakesh                             |
| May 2019             | Delft University of Technology      | April 2019           | IMDEA Software, Madrid                     |
| Jan 2019             | POPL, Lisbon                        | Dec 2018             | Microsoft Research, Cambridge              |
| Nov 2018             | TU Vienna                           | Nov 2018             | IST Austria, Vienna                        |
| Nov 2017             | OOPSLA, Vancoover                   | Oct 2017             | CNS Review, San Diego                      |
| Jun 2016             | PLDI, Santa Barbara                 | Nov 2015             | NetOS group, University of Cambridge       |
| $\mathrm{Sep}\ 2015$ | University of California, San Diego | $\mathrm{Sep}\ 2015$ | RiSE Seminar, IST Austria                  |
| Aug 2015             | IMDEA Software Institute            | Aug 2015             | Parametrized Verification Workshop, Madrid |
| Jul 2015             | CAV, San Francisco                  | May 2015             | University of Leicester                    |
| May 2014             | Alpine verification meeting, Frejus | Feb 2014             | PPS, University of Paris 7                 |
| Feb 2014             | LIAFA, University of Paris 7        | Sep 2013             | CONCUR, Buenos Aires                       |

### Program Committee member

| 2023 | ASPLOS, NETYS         |
|------|-----------------------|
| 2022 | CAV, PLDI, CCSW, PLAS |
| 2021 | CCS, RAID, NETYS      |
| 2020 | PriSC                 |
| 2019 | PLAS                  |

### Journal reviewer

ACM Transactions on Programming Languages and Systems (TOPLAS)

ACM Transactions on Software Engineering and Methodology (TOSEM)

### Organizer

| 2023 | Co PC-Chair, Workshop on Programming Languages and Analysis for Security (PLAS) |
|------|---|
| 2021 | Artifact Evaluation Co-Chair, VMCAI   |
| 2019 | Co-organizer Verification of Distributed Systems Workshop (VDS) at NETYS        |

## **Artifact Evaluation**

| 2020 | Committee Member, CAV  |
|------|------------------------|
| 2018 | Committee Member, POPL |

# Teaching

| 2021- | Research Proposal Writing, MSc., VU Amsterdam |
|-------|---|
| 2021- | Verification for Security, MSc., VU Amsterdam |
| 2020- | Compiler Construction, BSc., VU Amsterdam     |

# Advising

| Saideh Ahangary     | PhD | 2022-     | VU Amsterdam (co-advised) |
|---------------------|-----|-----------|---------------------------|
| Robin Webbers       | PhD | 2022-     | VU Amsterdam (co-advised) |
| Raphael Isemann     | PhD | 2021-     | VU Amsterdam (co-advised) |
| Johannes Blaser     | PhD | 2021-     | VU Amsterdam (co-advised) |
| Alp Basar           | MSc | 2022-     | VU Amsterdam              |
| Aleksander Markovic | MSc | 2022-     | VU Amsterdam (co-advised) |
| Robin Webbers       | MSc | 2022      | VU Amsterdam              |
| Alex Keizer         | MSc | 2022      | VU Amsterdam              |
| Simon Heijungs      | MSc | 2021-2022 | VU Amsterdam (co-advised) |
| Paul Ellsiepen      | BSc | 2022-     | VU Amsterdam              |
| Hugo Matthews       | BSc | 2022-     | VU Amsterdam              |
| Bogdan Cercel       | BSc | 2022      | VU Amsterdam              |

## Institutional Responsibilities

| 2022  | Hiring Committee, Tenure Track Faculty, VU Amsterdam             |
|-------|--|
| 2021- | Coordinator M.Sc. thesis, Master's CS and Security, VU Amsterdam |
| 2021- | Co-Coordinator B.Sc. thesis, Bachelor's CS, VU Amsterdam         |
| 2021  | Member of working group on graduation theses, VU Amsterdam       |

# **External Funding**

| 2021 | €250.000 | VeriPatch: Safe and Automatic Patch Generation. Co-PI.          |
|------|----------|---|
|      |          | Netherlands Organisation for Applied Scientific Research (TNO). |

# Departmental Funding

| 2022 | <b>€</b> 250.000 | Innovation Ph.D.: Verified Hardware for Memory Safety, Co-PI. VU Amsterdam. |
|------|------------------|---|
| 2021 | €250.000         | Innovation Ph.D.: Networking and Verification, Co-PI. VU Amsterdam.         |