

Dr.-Ing. Tobias Fiebig

Open Grants

- 02.2019- “**CyberSecurity4Europe**” **H2020** — **European Commission**, **Project:** *Building a network of competence centers for computer security across Europe*, **Responsibilities:** Took over project from prof.dr. Michel van Eeten; Leader of WP2 building a governance model for Computer Security Competence Centers in Europe, member of the management board; Supervising project completion after leaving TU Delft..

Project (Total): 14,798,748.00 EUR
TU Delft: 489.232.50 EUR

Former Grants

- 08.2020- “**RAPID**” **NWO** — **Dutch National Grant**, **Project:** *Understanding incentive and mitigation models in the development of Internet of Things devices*, **Responsibilities:** Co-applicant and one of two independent project members from TU Delft.

Project (Total): 725,000.00 EUR
TU Delft: ca. 725,000.00 EUR, ca. half per project member

- 11.2019- “**INTERSECT**” **NWA** — **Dutch National Grant**, **Project:** *Understanding human factors in the development of a secure Internet of Things*, **Responsibilities:** Co-applicant and one of two independent project members from TU Delft.

Project (Total): 10,000,000.00 EUR
TU Delft: ca. 1,000,000.00 EUR, 500,000.00 EUR per project member from TU Delft

- 01.2019- “**SafeDEED**” **H2020** — **European Commission**, **Project:** *Investigating business-model incentives for secure and privacy preserving behavior in companies*, **Responsibilities:** Co-applicant to PI Dr. de Reuver, contributing an applied engineering perspective to threat-models and incentive structures.

Project (Total): 4,996,600.00 EUR
TU Delft: 385,625.00 EUR

Completed Grants

- 01.2015- “**enzevalos**” **IKT2020** — **Selbstdatenschutz (BMBF)**, **Project:** *Creating usable End-to-End encryption implementations, securing day-to-day communications without relying on central infrastructure (PKI)*, **Responsibilities:** For Prof. Seifert, responsible for the TU Berlin portions of the proposal; conceptualization, application, budgeting and integration among the partners.

Project (Total): 704,895 EUR
Funding: 544,961 EUR
TU Berlin: 176,312.21 EUR

- 03.2022 **DOMAINPRIO: Prioritizing Domain Name Investigations to Improve SOC Efficiency**, Daiki Chiba, Mitsuaki Akiyama, Yuto Otsuki, Hiroki Hada, Takeshi Yagi, Tobias Fiebig, Michel van Eeten, *Accepted at IEEE Access*.
- 08.2022 **Security at the End of the Tunnel: The Anatomy of VPN Mental Models Among Experts and Non-Experts in a Corporate Context**, Veroniek Binkhorst, Tobias Fiebig, Katharina Krombholz, Wolter Pieters, Katsiaryna Labunets, *Accepted at USENIX Security'22*.
- 11.2021 **Out of Sight, Out of Mind: Detecting Orphaned Web Pages at Internet-Scale**, Stijn Pletinckx, Kevin Borgolte, Tobias Fiebig, *Proceedings of the 2021 ACM SIGSAC Conference on Computer and Communications Security (CCS '21)*.
- 09.2021 **SoK: A Framework for Asset Discovery: Systematizing Advances in Network Measurements for Protecting Organizations**, Mathew Vermeer, Jonathan West, Alejandro Cuevas, Shuonan Niu, Nicolas Christin, Michel van Eeten, Tobias Fiebig, Carlos Gañán, Tyler Moore, *Proceedings of the 6th IEEE European Symposium on Security & Privacy (EuroS&P)*.
- 04.2021 **Heads in the Clouds: Measuring the Implications of Universities Migrating to Public Clouds**, Tobias Fiebig, Seda Seda Gürses, Carlos H. Gañán, Erna Kotkamp, Fernando Kuipers, Martina Lindorfer, Menghua Prisse, Taritha Sari, *Technical Report arXiv:2104.09462, Under Submission*.
- 03.2021 **Human Factors in Security Research: Lessons Learned from 2008-2018**, Manat Kaur, Michel van Eeten, Marijn Janssen, Kevin Borgolte, Tobias Fiebig, *Technical Report arXiv:2103.13287*.
- 12.2020 **On the value of the Digital Internet/Physical Internet analogy**, Sharon van Luik, Tobias Fiebig, Patrick Fahim, Pieter de Waard, Lorant Tavasszy, *Journal of Supply Chain Management Science*.
- 12.2020 **Understanding the Knowledge Gap: How Security Awareness Influences the Adoption of Industrial IoT**, Verena Schrama, Carlos H. Gañán, Doris Aschenbrenner, Mark de Reuver, Kevin Borgolte, Tobias Fiebig, *The 2020 Workshop on the Economics of Information Security (WEIS'20)*.
- 09.2020 **TXTing 101: Finding Security Issues in the Long Tail of DNS TXT Records**, Olivier van der Toorn, Roland van Rijswijk-Deij, Tobias Fiebig, Martina Lindorfer, Anna Sperotto, *IEEE Euro SPW WTMC 2020*.
- 09.2020 **How to stop crashing more than twice: A Clean-Slate Governance Approach to IT Security**, Tobias Fiebig, *IEEE Euro SPW CyberCert 2020*.
- 01.2020 **Governance Challenges for European CyberSecurity Policies: Stakeholders Views**, Pierantonia Sterlini, Fabio Massacci, Natalia Kadenko, Tobias Fiebig, Michel van Eeten, *IEEE Security & Privacy Magazine (SPM), Special Issue on Governance*.
- 04.2019 **Evolution of SSL/TLS Indicators and Warnings in Web Browsers**, Lydia Kraus, Martin Ukrop, Vashek Matyas, Tobias Fiebig, *Twenty-seventh International Workshop on Security Protocols (SPW)*.
- 10.2018 **Investigating System Operators' Perspective on Security Misconfigurations**, Constanze Dietrich, Katharina Krombholz, Kevin Borgolte, Tobias Fiebig, *ACM SIGSAC Conference on Computer and Communications Security (CCS)*.
- 07.2018 **Learning from the Past: Designing Secure Network Protocols**, Tobias Fiebig, Franziska Lichtblau, Florian Streibelt, Thorben Krüger, Pieter Lexis, Randy Bush, Anja Feldmann, *Springer Cybersecurity Best Practices, ISBN 978-3-658-21654-2*.

- 05.2018 **Enumerating Active IPv6 Hosts for Large-scale Security Scans**, *Kevin Borgolte, Shuang Hao, Tobias Fiebig, Giovanni Vigna*, IEEE Symposium on Security&Privacy (Oakland).
- 03.2018 **Taking Control of SDN-based Cloud Systems via the Data Plane**, *Kashyap Thimmaraju, Bhargava Shastry, Tobias Fiebig, Felicitas Hetzelt, Jean-Pierre Seifert, Anja Feldmann, Stefan Schmid*, ACM Symposium on SDN Research (SOSR), **Best Paper Award**.
- 03.2018 **In rDNS We Trust: Revisiting a Common Data-Source's Reliability**, *Tobias Fiebig, Kevin Borgolte, Shuang Hao, Christopher Kruegel, Giovanni Vigna, Anja Feldmann*, Passive and Active Measurement Conference (PAM).
- 02.2018 **Cloud Strife: Mitigating the Security Risks of Domain-Validated Certificates**, *Kevin Borgolte, Tobias Fiebig, Shuang Hao, Christopher Kruegel, Giovanni Vigna*, Network and Distributed System Security Symposium (NDSS).
- 11.2017 **The vAMP Attack: Taking Control of Cloud Systems via the Unified Packet Parser**, *Kashyap Thimmaraju, Bhargava Shastry, Tobias Fiebig, Felicitas Hetzelt, Jean-Pierre Seifert, Anja Feldmann, Stefan Schmid*, ACM Cloud Computing Security Workshop (CCSW).
- 09.2017 **Static Program Analysis as a Fuzzing Aid**, *Bhargava Shastry, Markus Leutner, Tobias Fiebig, Kashyap Thimmaraju, Fabian Yamaguchi, Konrad Rieck, Stefan Schmid*, RAID (Research in Attacks, Intrusions and Defenses).
- 03.2017 **Something From Nothing (There): Collecting Global IPv6 Datasets From DNS**, *Tobias Fiebig, Kevin Borgolte, Shuang Hao, Christopher Kruegel, Giovanni Vigna*, PAM (Passive and Active Measurement) Conference.
- 10.2016 **A One-Year Perspective on Exposed In-memory Key-Value Stores**, *Tobias Fiebig, Anja Feldmann, Matthias Petschick*, SafeConfig'16, ACM CCS Workshops.
- 05.2015 **Analyzing End-Users' Knowledge and Feelings Surrounding Smartphone Security and Privacy**, *Lydia Kraus, Tobias Fiebig, Viktor Miruchna, Sebastian Möller, Asaf Shabtai*, MOST 2015, IEEE S&P Workshops.
- 08.2014 **A Metric for the Evaluation and Comparison of Keylogger Performance**, *Tobias Fiebig, Janis Danisevskis, Marta Piekarska*, CSET 2014, USENIX Security Workshops.
- 08.2014 **Security Impact of High Resolution Smartphone Cameras**, *Tobias Fiebig, Jan Krissler, Ronny Hänsch*, WOOT 2014, USENIX Security Workshops.

Talks & Panel Membership

- 05.2021 **Ringvorlesung Internet and Privacy at TU Berlin**, *Presenting on efforts for self sovereign teaching infrastructure and measurements of the cloudification of universities..*
- 12.2020 **Europol EMPACT Scenario Workshop Panel Member**, *Consulting of Europol on future developments of computer and network security..*
- 02.2020 **CyberSecurity4Europe Pannel on the Future of Cybersecurity Governance in Europe**, *Pannel speaker with representatives of the presidency of the European Union, the European Data Protection Officer, and members of the civil society.*
- 07.2018 **Improving the ACME protocol against IP-use-after-free attacks**, *Internet Engineering Task Force (IETF) Meeting No. 102, Montreal*, Working towards reaching standardization of research results from earlier research (NDSS 2018 paper) through the IETF.
- 07.2018 **The State of Reverse DNS**, *ICANN DNS Symposium (IDS) 2018, Montreal*, Presenting work on reverse DNS to the audience of an Internet governance body's topic-specific annual Symposium.

- 03.2017 **You can -j REJECT but you can not hide: Global scanning of the IPv6 Internet**, *Internet Engineering Task Force (IETF) Meeting No. 98, Chicago*, Presenting first steps towards scanning IPv6 globally in an industry context, with a special focus on transferring academic insights to industry players.
- 12.2016 **You can -j REJECT but you can not hide: Global scanning of the IPv6 Internet**, *33C3: 33rd Chaos Communication Congress, Hamburg*, Presenting first steps towards scanning IPv6 globally.
- 06.2016 **Kleine Fehler—Große Wirkung**, *Ringkolloquium: Digitale Herausforderungen—Perspektiven auf Datenschutz und Datensicherheit aus Wissenschaft, Wirtschaft und Politik*, How the field of security and usability neglects the role of operations personell, and how this leads to security misconfigurations in the wild.
- 06.2014 **Teaching Crypto - How to Make Teenagers Curious**, *20. Kryptotag der Gesellschaft für Informatik, Berlin*, Using hardware reverse engineering as a tool to teach high-school students about computer science.
- 09.2012 **Seminar for the “Union of the Police” (Gewerkschaft der Polizei, GdP) on “Cybercrime”**, *representing a German NGO*.
- 05.2012 **Lecture during the Symposium of the “Union of the Police” (Gewerkschaft der Polizei, GdP) on “Cybercrime”**, *representing a German NGO*.

Teaching

- 2018 – 2021 **Module Manager: Fundamentals of Data Analytics for Cyber Security**, *Master course teaching practical techniques used for analyzing Internet and security measurement data*.
- 2018 – 2021 **Module Manager: ICT Risk & Control (From 2022: Maintainable Systems Management)**, *Bachelor course teaching systematic and sustainable operation of distributed system, including security and privacy*.
- 2017 **Lectorship Beuth Hochschule Berlin, Supervision Masterthesis**, *Constanze Dietrich, “Sicherheitsrisiken durch den Faktor Mensch im IT-Betrieb: Eine empirische Evaluation der Erfahrungen von Systemadministratoren im Kontext sicherheitsrelevanter Fehlkonfigurationen”*, Examiners: Tobias Fiebig, Ilse Schmiedecke, Prof. Dr. Merceron.
- Winter Term 2014/2015 **Re-design Computer Security Seminar of FG SecT**, *I designed a new version of the Computer Security Seminar, which is more engaging for students and improves their general learning experience..*

Academic Services

- 11.2019–01.2022 **Member of the Board of Studies**, *TU Delft*, Member of the board of studies for the Master programs at the faculty of TBM.

Program Committees

- 2022 **Passive and Active Measurement Conference (PAM)**.
IEEE Symposium on Security and Privacy (Oakland).
ACM Conference on Computer and Communications Security (CCS).
- 2021 **ACM Conference on Computer and Communications Security (CCS)**.
IEEE Symposium on Security and Privacy (Oakland).
USENIX Security Symposium.
- 2020 **ACM Conference on Computer and Communications Security (CCS)**.
USENIX International Symposium on Research in Attacks, Intrusions and Defenses (RAID).

- ACM International Conference on emerging Networking EXperiments and Technologies (CoNEXT).
- IEEE Symposium on Security and Privacy (Oakland).
- 2019 ACM Internet Measurement Conference.
- APWG eCrime.

Research Experience

- 04.2022 – **Researcher**, *Max-Planck-Institut für Informatik*, Forschungsgruppe Internet Architecture.
- 04.2022 – **Hospitation**, *TU Delft*, Faculty of Technology, Policy and Management, Multi Actor System, Hospitation zur Durchführung der PI Rolle in CyberSec4Europe.
- 10.2017 – **Assistant Professor (permanent)**, *TU Delft*, Faculty of Technology, Policy and Management.
- 09.2017 – **Researcher**, *Technische Universität Berlin*, Research Group of Prof. Dr. Jean-Pierre Seifert, Closing up project enzevalos as coordinating senior researcher.
- 05.2017 – **Researcher**, *Technische Universität Berlin*, Research Group of Prof. Anja Feldmann, Ph. D, Research on Internet measurement, human factors in security and Internet-scale security misconfiguration.
- 03.2017 – **Visiting Researcher**, *University of California, Santa Barbara*, Research Group of Prof. Christopher Kruegel and Prof. Giovanni Vigna, Research on Internet-scale measurements of DNS and misconfiguration.
- 06.2015 – **Research Assistent**, *Technische Universität Berlin*, Research Group of Prof. Anja Feldmann, Ph. D, Research on Internet measurement, human factors in security and Internet-scale security misconfiguration.
- 09.2013 – **Research Assistent**, *Technische Universität Berlin*, Research Group of Prof. Dr. Jean-Pierre Seifert, Research on mobile security, security of financial transaction security methods, and Internet-scale security misconfiguration.

Education

- 09.2013 – **Dr.-Ing.**, *TU Berlin*, Advised by Prof. Feldmann together with Prof. Seifert, Thesis Title: An Empirical Evaluation of Misconfiguration in Internet Services.
Grade: Sehr Gut bestanden
- 09.2012 – **MSc in System and Network Engineering**, *University of Amsterdam, Netherlands*.
Grade: 7.8 GPA (US Letter Grade: A)
- 10.2008 – **BSc in Cognitive Science**, *University of Osnabrück, Germany*, Majors: *Cognitive Psychology, Philosophy of Mind, Artificial Intelligence, Computational Linguistics and Computer Science*, Grade: Very Good.
- 09.2005 – **University Entrance Diploma (Abitur)**, *Städtisches Gymnasium Kamp-Lintfort, Germany*, Grade: 2.1.