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Swiss Federal Department of Defence,  
Civil Protection and Sport (DDPS)  
armasuisse  
Science + Technology



## Cyber-Defence Campus Conference on Privacy-Enhancing Technologies

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**Wednesday, 4<sup>th</sup> November 2020**

SwissTech Convention Center, EPFL  
Rue Louis Favre 2, 1024 Ecublens, Schweiz  
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## About The Event



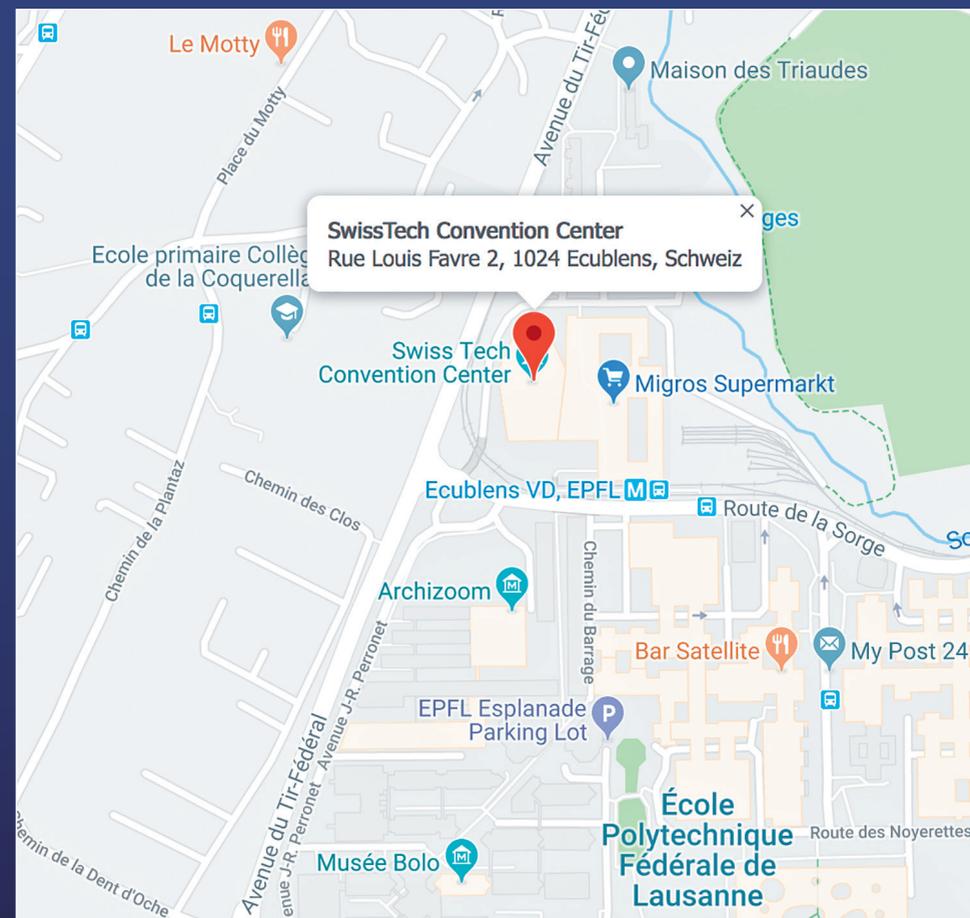
We have entered a digital era where more data is available than ever. In combination with new technologies and methods to store, access and process data, large data sets have become important and invaluable assets. On the one hand, the availability and usage of big data sets can enhance various domains of people's lives, from urban planning to better prevention of severe diseases. On the other hand, technology enables novel forms of surveillance and tracking, as well as possibilities of discrimination of individuals. In addition to these rather obvious use cases, data sets about the online behavior of individuals in combination with novel methods to extract information have been successfully used for marketing purposes or even for political opinion formation. If data is the new oil, privacy erosion is its global warming effect, its most worrying negative consequence. Like global warming, privacy is quietly but steadily eroding and, as of today, it seems impossible to apprehend its evolution and long-term consequences.

Examples of this privacy erosion are numerous: credentials of billions of e-mail addresses available online, the Cambridge Analytica-Facebook scandal, the massive surveillance by intelligence agencies through the Internet backbone or web service providers, information leakage in mobile applications or wearables, and re-identification of genomic databases. Recent attacks demonstrate that data leakage affects everyone, from the soldier to the politician and citizen. In order to improve the current situation, we must highlight the importance of privacy for our democratic societies, and raise awareness about the ongoing privacy erosion. Researchers, practitioners, legal scholars need to inform the public and make the layman aware of the risks of information (over-)sharing. Finally, it is also our responsibility to put in place the defenses for improving the current situation and preventing future privacy breaches. With this conference, our goal is to provide a platform to discuss the most pressing issues in privacy and to learn more about the technologies that will help enhance privacy in the future.

Program Chair  
Mathias Humbert

armasuisse, Science + Technology  
Cyber-Defence Campus

## Location of the Event



**SwissTech Convention Center**  
**Rue Louis Favre 2**  
**1024 Ecublens**  
**Schweiz**

**Car Park: Parking les arcades**

A block of rooms have been reserved for our conference at the Starling Hotel Lausanne. The special room rate (195.– CHF incl. breakfast) will be available until the 1<sup>st</sup> of October or until the group block is sold-out, whichever comes first. You can book your room here: <https://bit.ly/conferencehotelcydcampus> Code: CYDCAMP

# Conference Program

## Wednesday, 4<sup>th</sup> November

08.30	<b>Registration open – Welcome Coffee</b>
09.00	<b>Welcome</b> <b>Dr. Vincent Lenders</b> , armasuisse S+T, Director CYD Campus <b>Dr. Mathias Humbert</b> , Scientific project manager, armasuisse S+T, CYD Campus
09.15	<b>Prof. Claudia Diaz</b> , Associate Professor, KU Leuven
10.00	<b>Coffee Break – Networking</b>
10.30	<b>Dr. Jean-Philippe Aumasson</b> , VP Technology at Kudelski Security, Managing director and co-founder at Taserakt
11.15	<b>Dr. Fabio Ricciato</b> , European Commission
12.00	<b>Lunch with demo/poster session</b>
13.30	<b>Prof. Srdjan Capkun</b> , Professor at ETH Zurich
14.15	<b>Prof. Dimitar Jetchev</b> , CTO and co-founder at Inpher
15.00	<b>Coffee Break – Networking</b>
15.30	<b>Prof. Carmela Troncoso</b> , Professor at EPFL
16.15	<b>Daniel Seiler</b> , Deputy Head at Swiss Federal Department of Foreign Affairs
17.00	<b>Wrap-up</b>

## Speakers



**Dr. Vincent Lenders**  
**Head of Cyber-Defence Campus, armasuisse S+T**

Vincent Lenders is the Director of the Cyber-Defence Campus and head of the Cyber Security and Data Science Department at armasuisse Science and Technology. He is also the cofounder and chairman of the executive boards at the OpenSky Network and Electrosense associations. He graduated with a Msc and PhD degree in Electrical Engineering and Information Technology from ETH Zurich and was also Postdoctoral Researcher at Princeton University. He has led during eight years the Swiss military research program on «Cyberspace and Information» and he was Industrial Director of the Zurich Information Security and Privacy Center (ZISC) at ETH Zurich from 2012 to 2016. His research work has appeared in more than 120 publications at peer-reviewed international conferences and journals and has received various best paper awards.



**Dr. Mathias Humbert**  
**Scientific project manager, armasuisse S+T, CYD Campus**

Mathias Humbert is a scientific project manager at the newly created Cyber-Defence Campus, armasuisse S+T (Switzerland). Prior to this, he was a senior data scientist at the Swiss Data Science Center (ETH Zurich, EPFL) and a post-doctoral researcher at the Center for IT-Security, Privacy, and Accountability (CISPA) in Saarbrücken (Germany). He completed his Ph.D. thesis on interdependent privacy in early 2015 in the School of Computer and Communication Sciences of EPFL, after M.Sc. (2009) and B.Sc. (2007) studies at EPFL and UC Berkeley. He is a recipient of the NDSS 2019 distinguished paper award. His research interests include privacy protection and machine learning applied to security and privacy.



**Prof. Claudia Diaz**  
**Associate Professor, KU Leuven**

Claudia Diaz is an Associate Professor at the COSIC research group of the Department of Electrical Engineering (ESAT) at the KU Leuven, where she leads the Privacy Technologies Team. She holds a Master's degree in Telecommunications Engineering at the University of Vigo (Spain, 2000), and a Ph.D. in Engineering at the KU Leuven (Belgium, 2005). Her research is focused on the design, analysis, and applications of technologies to protect online privacy, and in particular technologies that offer protection for metadata to prevent traffic analysis, tracking, localisation, or behavioral profiling.



**Dr. Jean-Philippe Aumasson**  
**VP Technology at Kudelski Security**

Jean-Philippe Aumasson is the founder and managing director of Teserakt, a Swiss-based company specialised in IoT security and offering an end-to-end encryption solution. He is an expert in cryptography and the author of the reference book *Serious Cryptography* (No Starch Press, 2017). He designed the widely used cryptographic algorithms SipHash and BLAKE2, which he developed after a PhD from EPFL (Switzerland, 2009). He regularly speaks at leading security conferences about topics such as applied cryptography, quantum computing, or blockchain security. JP also holds strategic roles in Kudelski Security and Taurus Group.



**Dr. Fabio Ricciato**  
**Member of the EUROSTAT Unit on Innovation and Methodology in Official Statistics, European Commission**

Fabio Ricciato graduated in Electrical Engineering in 1999 and obtained a PhD in Information and Communication Technologies in 2003 from University La Sapienza, Italy. Between 2004 and 2017 he worked as researcher, professor and middle manager across four different institutions in three European countries. He served as assistant professor at the Faculty of Engineering, University of Salento, Lecce, Italy, and associate professor at the Faculty of Computer Science, University of Ljubljana, Slovenia. In 2018 he joined the European Commission as a member of the EUROSTAT Task Force on Big Data, and since January 2019 he is with EUROSTAT Unit B1 on Innovation and Methodology in Official Statistics. His current interests focus on the application of advanced computation technologies and new data sources for the modernization of official statistics production, privacy-preserving computation methods, inter-institutional data analytics and analysis of mobile network operator data for official statistics.



**Prof. Srdjan Capkun**  
**Full Professor, ETH Zurich**

Srdjan Capkun was born in Split, Croatia. He received his Dipl.Ing. Degree in Electrical Engineering / Computer Science from the University of Split in 1998, and his Ph.D. degree in Communication Systems from EPFL in 2004. Prior to joining ETH Zurich in 2006 he was a postdoctoral researcher in the Networked & Embedded Systems Laboratory (NESL), University of California Los Angeles and an Assistant Professor in the Informatics and Mathematical Modelling Department, Technical University of Denmark (DTU). His research interests are in system and network security. His focus areas are wireless security (in particular secure positioning), and system security where he focuses on trusted computing and blockchain technologies. He is a co-founder of 3db Access, a company focusing on secure distance measurement and proximity-based access control, and of Sound-Proof a spin-off focusing on usable on-line authentication. In 2016 he received an ERC Consolidator Grant for a project on securing positioning in wireless networks. He is a fellow of the ACM.



**Prof. Dimitar Jetchev**  
**CTO and co-founder, Inpher**

Dimitar Jetchev is also a Professor of Mathematics at EPFL, Switzerland, funded by the Swiss National Science Foundation. He heads a research group in mathematical cryptology working on various fundamental problems in number theory and mathematical cryptology. Dimitar has developed algorithms for a prominent HFT firm in New York, and as a Microsoft Research Fellow at the Cryptography and Anti-Piracy Group he has contributed to the design and development of the Windows software-licensing scheme. Dr. Jetchev holds a B.A. in mathematics from Harvard University and M.A. and Ph.D. from University of California, Berkeley.



**Prof. Carmela Troncoso**  
**Assistant Professor, EPFL**

Carmela Troncoso holds a Master's degree in Telecommunication Engineering from the University of Vigo (2006) and a Ph.D. in Engineering from the KU Leuven (2011). Before arriving to EPFL she was a Faculty member at the IM-DEA Software Institute (Spain) for 2 years; the Security and Privacy Technical Lead at Gradiant working closely with industry to deliver secure and privacy friendly solutions to the market for 4 years; and a post-doctoral researcher at the COSIC Group.

Carmela's research focuses on security and privacy. Her thesis «Design and Analysis methods for Privacy Technologies» received the European Research Consortium for Informatics and Mathematics Security and Trust Management Best Ph.D. Thesis Award; and her work on Privacy Engineering received the CNIL-INRIA Privacy Protection Award 2017. She regularly publishes in the most prestigious venues in Security (e.g. ACM Conference on Computer Security or USENIX Security Symposium) and Privacy (Privacy Enhancing Technologies).



**Daniel Seiler**  
**Deputy Head of the Office of the Special Envoy for Cyber Foreign and Security Policy, Swiss Federal Department of Foreign Affairs (FDFA)**

In this function Daniel Seiler focuses on cyber diplomacy, on national and international policy aspects of cybersecurity with a particular focus on the impact and significance of new technologies in this domain. Daniel Seiler received his M.A. in law in 2007 from the University of Basel. From 2009 to 2015 he was the deputy head of the federal Post and Telecommunications Surveillance Service (PTSS). From 2015 to 2019, before joining the FDFA, he was the Head Legal Transformation & Technology Law at KPMG Switzerland. Since 2019 he is also a guest lecturer at University of St. Gallen (HSG) for Privacy as well as for Impacts of Technology (AI, IoT, Social Media) to Privacy.

# Helpful Information

## Wifi information

The wifi is called **«Free\_STCC»**

As soon as you login on this wifi,  
you will get redirected with all indications

## Contact before and during the conference

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