For each paper presentation, a 25-minute video will be played by the session chair during the event designated talk time slot of the program (and will be followed by a 5 minute Q&A session that authors will answer live).

Day 1: Wednesday, 6 October 2021

08:15 Registration

08:30 Welcome (General Chair, Program Committee Chairs)

09:00 **Internet of Robots or Things?**
Session Chair: Ramin Sandre

- Analysis and Mitigation of Function Interaction Risks in Robot Apps. *Yuan Xu, Tianwei Zhang, Yungang Bao*
- An Investigation of Byzantine Threats in Multi-Robot Systems. *Gelei Deng, Yuan Zhou, Yuan Xu, Tianwei Zhang, Yang Liu*
- SniffMislead: Non-Intrusive Privacy Protection against Wireless Packet Sniffers in Smart Homes. *Xuanyu Liu, Qiang Zeng, Xiaojiang Du, Siva Likitha Valluru, Chenglong Fu, Xiao Fu, Bin Luo*

10:30 Coffee Break

11:00 **What is all the fuzz about?**
Session Chair: Davide Balzarotti

- BSOD: Binary-only Scalable fuzzing Of device Drivers. *Dominik Maier, Fabian Toepfer*
- LeanSym: Efficient Hybrid Fuzzing Through Conservative Constraint Debloating. *Xianya Mi, Sanjay Rawat, Cristiano Giuffrida, Herbert Bos*
- UFuzzer: Lightweight Detection of PHP-Based Unrestricted File Upload Vulnerabilities Via Static-Fuzzing Co-Analysis. *Jin Huang, Junjie Zhang, Jialun Liu, Chuang Li, Rui Dai*

12:30 Lunch

14:00 **At the core of everything**
Session Chair: Igor Santos

- SecureFS: A Secure File System for Intel SGX. *Sandeep Kumar, Smruti R. Sarangi*
- BasicBlocker: ISA Redesign to Make Spectre-Immune CPUs Fasteriot. *Jan Philipp Thoma, Jakob Feldtkeller, Markus Krausz, Tim Güneysu, Daniel J. Bernstein*
- Fast Intra-kernel Isolation and Security with IskiOS. *Spyridoula Gravani, Mohammad Hedayati, John Criswell, Michael L. Scott*
- Encryption is Futile: Reconstructing 3D-Printed Models Using the Power Side-Channel. *Jacob Gatlin, Mark Yampolskiy, Dr. Anthony Skjellum, Sofia Belikovetsky, Yuval Elovici, Joshua Lubell, Paul Witherell*

16:00 Coffee Break

16:30 **Keynote**

- Riding the Fuzzing Hypetrain. *Mathias Payer*

18:30 Catamaran

20:00 **Dinner:** Saizar Cider House

Day 2: Thursday, 7 October 2021

08:45 Registration

09:00 **Reverse like you mean it!**
Session Chair: Leyla Bilge

- DisCo: Combining Disassemblers for Improved Performance. *Sri Shaila G, Ahmad Darki, Michalis Faloutsos, Nael Abu-Ghazaleh, Manu Sridharan*
- iTOP: Automating Counterfeit Object-Oriented Programming Attacks. *Paul Muntean, Richard Viehoever, Zhiqiang Lin, Gang Tan, Jens Grossklags, Claudia Eckert*
- Lost in the Loader: The Many Faces of the Windows PE File Format. *Dario Nisi, Mariano Graziano, Yanick Fratantonio, Davide Balzarotti*

10:30 Coffee Break

11:00 **Detect it already!**
Session Chair: Bum Jun Kwon

- Crafting Adversarial Example to Bypass Flow-&ML-based Botnet Detector via RL. *Junnan Wang, Liu Qixu, Wu Di, Ying Dong, Xiang Cui*
- CADUE: Content-Agnostic Detection of Unwanted Emails for Enterprise Security. *Mohamed Nabeel, Enes Altinisik, Haipei Sun, Issa Khalil, Hui (Wendy) Wang, Ting Yu*
- GrandDetAuto: Detecting Malicious Nodes in Large-Scale Autonomous Networks. *Tigist Abera, Ferdinand Brasser, Lachlan Gunn, Patrick Jauernig, David Koisser, Ahmad-Reza Sadeghi*

12:30 Lunch

14:00 **IoT everywhere anywhere**
Session Chair: Urko Zurutuza

- AttkFinder: Discovering Attack Vectors in PLC Programs using Information Flow Analysis. *John H. Castellanos, Martin Ochoa, Alvaro A. Cardenas, Owen Arden, Jianying ZHOU*
- HandLock: Enabling 2-FA for Smart Home Voice Assistants using Inaudible Acoustic Signal. *Xaohu Zhang, Anupam Das*
- What Did You Add to My Additive Manufacturing Data?: Steganographic Attacks on 3D Printing Files. *Mark Yampolskiy, Lynne Graves, Jacob Gatlin, Anthony Skjellum, Moti Yung*
- Practical Speech Re-use Prevention in Voice-driven Services. *Yangyong Zhang, Maliheh Shirvanian, Sunpreet Arora, Jianwei Huang, Guofei Gu*

16:00 Coffee break

16:30 **Doesn't exist if I don't see it (!)**
Session Chair: Iskander Sanchez

- μSCOPE: A Methodology for Analyzing Least-Privilege Compartmentalization in Large Software Artifacts. *Nick Roessler, Lucas Atayde, Imani Palmer, Derrick McKee, Jai Pandey, Vasileios P. Kemerlis, Mathias Payer, Adam Bates, André DeHon, Jonathan M. Smith, Nathan Dautenhahn*
- The Service Worker Hiding in Your Browser: The Next Web Attack Target?. *Phakpoom Chinprutthiwong, Raj Vardhan, GuangLiang Yang, Yangyong Zhang, Guofei Gu*
- Designing Media Provenance Indicators to Combat Fake Media. *Imani N. Sherman, Jack W. Stokes, Elissa M. Redmiles*

21:00 **Gala Dinner:** Mirador de Ulía*

Day 3: Friday, 8 October 2021

09:15 Registration

09:30 **Let's measure a little!**
Session Chair: Marc Dacier

- Marked for Disruption: Tracing the Evolution of Malware Delivery Operations Targeted for Takedown. *Colin C. Ife, Yun Shen, Gianluca Stringhini, Steven J. Murdoch*
- The Evolution of DNS-based Email Authentication: Measuring Adoption and Finding Flaws. *Dennis Tatang, Florian Zettl, Thorsten Holz*
- Where We Stand (or Fall): An Analysis of CSRF Defenses in Web Frameworks. *Xhelal Likaj, Soheil Khodayari, Giancarlo Pellegrino*

11.00 Coffee Break

11:30 **Minestrone**
Session Chair: Giancarlo Pellegrino

- On the Usability (In)Security of In-App Browsing Interfaces in Mobile Apps. *Zicheng Zhang, Daoyuan Wu, Lixiang Li, Debin Gao*
- Stratosphere: Finding Vulnerable Cloud Storage Buckets. *Jack Cable, Drew Gregory, Liz Izhikevich, Zakir Durumeric*
- The Curse of Correlations for Robust Fingerprinting of Relational Databases. *Tianxi Ji, Emre Yilmaz, Erman Ayday, Pan Li*

13:00 Lunch

14:30 **Artificial or Organic Intelligence?**
Session Chair: Yufel Han

- Mini-Me, You Complete Me! Data-Driven Drone Security via DNN-based Approximate Computing. *Aolin Ding, Praveen Murthy, Luis Garcia, Pengfei Sun, Matthew Chan, Saman Zonouz*
- Living-Off-The-Land Command Detection Using Active Learning. *Talha Ongun, Jack W. Stokes, Jonathan Bar Or, Ke Tian, Farid Tajaddodianfar, Joshua Neil, Christian Seifert, Alina Oprea,John Platt*
- SyML: Guiding Symbolic Execution Toward Vulnerable States Through Pattern Learning. *Nicola Ruaro, Kyle Zeng, Lukas Dresel, Mario Polino, Tiffany Bao, Andrea Continella, Stefano Zanero, Christopher Kruegel, Giovanni Vigna*

16:00 Closing Remarks

The 24th International Symposium on Research in Attacks, Intrusions and Defenses

RAID 2021

Mondragon Unibertsitatea
Goi Eskola Politeknikoa

October 6-8, 2021
Kursaal Congress Centre and Auditorium
Donostia-San Sebastian

Sponsors

King Abdullah University of Science and Technology

BASQUE CYBERSECURITY CENTRE

ZIUR INDUSTRIAL CYBER SECURITY CENTER-GIPUZKOA

SOPHOS

RENIC Red de Excelencia Nacional de Investigación en Ciberseguridad

Collaborators

UDA IKASTAROAK CURSOS DE VERANO SUMMER COURSES UPV/EHU

ELKARTU JAURLARITZA GOBIERNO VASCO HEZKUNTZA SAILA DEPARTAMENTO DE EDUCACIÓN

TELECOM SudParis IP PARIS s2movar

GRUPO Billingham Regalos y Merchandising