

Message from the USENIX Security '22 Program Co-Chairs

On behalf of USENIX, we, the program co-chairs, want to welcome you to the proceedings of the 31st USENIX Security Symposium. The 2021–2022 reviewing cycles happened amidst the ongoing COVID-19 pandemic, presenting unique and ongoing challenges to both reviewers and authors due to restrictions on travel and work due to illness and significant loss. We have been consistently amazed over the last year and a half by the capacity of this community to come together and rise above these challenges. It has been our honor to work with everyone who helped make the 31st USENIX Security Symposium a reality as a hybrid in-person and virtual event, and we are proud of what we have accomplished together.

We are fortunate to draw upon the rich history of the USENIX Security Symposium and the experiences of many past chairs in arriving at a model for building this year's technical program. In an effort to remove bias and ensure fairness, we adopted, as others before us, a double-blind review process. In an effort to address the volume of papers while assuring that accepted papers received critical review, we used a two-round process in which papers forwarded to the second round received significant additional reviews. Authors whose papers advanced were also provided with the opportunity for a rebuttal to correct factual errors in the reviews after reviews were completed. We continued the requirement started in 2021 to provide reviews from prior submissions (drawn from ACM CCS 2020 CFP, IEEE S&P 2021 CFP). In addition to providing the reviews to reviewers, the authors are given the opportunity to explain how they addressed the concerns raised by these reviews. To avoid biasing reviewers negatively, the existence and contents of these prior reviews are only revealed after reviews submit their feedback, but before any final decisions.

New this year was the creation of a Research Ethics Committee (REC) to address questions or concerns of unmitigated ethics considerations flagged by reviewers of submissions. This committee consisted of 15 members drawn from the PC with expertise on responsible disclosure, human subjects research, reverse engineering, measurement, and other ethical best practices. Members included Joseph Bonneau, Srđan Ćapkun, Nicolas Christin, Zakir Durumeric, Manuel Egele, William Enck, Thorsten Holz, Patrick Gage Kelley, Sam King, Tadayoshi Kohno, Michelle Mazurek, Sarah Meiklejohn, Mathias Payer, Niels Provos, and Franziska Roesner. For papers flagged with potential ethics considerations, two members of the REC examined the submission, the associated reviews, and the reviewer discussion (following standard handling of conflicts). If an ethical consideration was determined to be present, the entire REC—excluding conflicts—provided feedback and provided advice for mitigating the issue. As with the general review process, we provided authors an opportunity to respond to ethics concerns to correct any factual errors. In so doing, the REC has helped to establish consistent ethical norms for the USENIX community.

These proceedings mark the end of the third full year of the multiple submission model with journal-style revisions. We again used a three-deadline model with Summer (June 8, 2021), Fall (October 12, 2021), and Winter (February 1, 2022) deadlines. Papers across all three submission cycles were made part of this single yearly proceedings, although pre-prints of these papers were available online after each session. A considerable number of papers in this year's program are the result of Major Revision decisions from the previous year's review cycle (69 in Summer and 20 in Fall). We continued the practice this year of having the previous year's co-chairs coordinating Major Revisions originating during their cycles. In our case, we were very fortunate to have last year's chairs, Michael Bailey (University of Illinois Urbana–Champaign and Georgia Institute of Technology) and Rachel Greenstadt (New York University) assigning reviewers, leading discussion, and making decisions for the Major Revision papers from the 2020–2021 review cycles. Their excellence and dedication is something we aspire to as we work to handle the Major Revision papers from the 2021–2022 season already being evaluated in the 2022–2023 season.

To implement the review process, we invited members of the community—previous authors, previous PC members, community recommendations and referrals, and self-nominations—to participate. Conscious of the very large set of submissions received last year, we continued with a large PC this year, comprising 288 members. We sought to assure the diversity of PC members in terms of representation, geographical diversity, inclusion of members from industry and government, and balancing senior members of the community with those new to USENIX Security. This committee oversaw, across the three submission cycles, the largest number of papers ever submitted to USENIX Security—401 in Summer '22, 508 in Fall '22, and 505 in Winter '22—for a total of 1,414 reviewed submissions. This total does not reflect the total number of submitted papers; as chairs, we administratively rejected papers that did not conform to the submission policy prior to review by the committee. We are tremendously grateful to the PC, who made a substantial commitment to reviewing across three submission cycles and a huge amount of effort, writing 5,197 reviews and engaging in robust discussions generating 16,344 comments. This reflects tens of thousands of hours of work, without which there would be no way to develop the excellent program assembled in these proceedings.

Because of the size of the PC and the length of commitment, invariably issues arise whereby reviewers are unable to serve during certain cycles or, because of emergencies and other unplanned circumstances, are unable to perform their reviews. To alleviate this issue and ensure high-quality peer reviews, we continued the process started last year of assembling a “Reviewer Strike Force,” composed of 11 individuals who agreed to take on last-minute reviews to help converge on decisions. This committee consisted of Florian Kerschbaum, Wouter Lueks, Matteo Maffei, Hamed Okhravi, Miroslav Pajic, Giancarlo Pellegrino, Bradley Reaves, Brendan Saltaformaggio, Peter Snyder, Ben Stock, and Qiang Zeng. We are grateful for your efforts in driving a consensus among reviewers and accommodating last minute review requests.

Our initial plans involved two in-person program committee meetings to build and strengthen the community, with the Fall '22 PC meeting tentatively scheduled to be in Mountain View, California, and the Winter '22 PC meeting scheduled for Zurich, Switzerland, along with the Summer '22 meeting scheduled virtually over Zoom. Because of logistics and the ongoing COVID-19 pandemic, however, we elected to hold all PC meetings over Zoom. The virtual PC meetings provided some of their own advantages, enabling some PC members to attend who otherwise would not have been able to. We had highly productive meetings, converging on decisions for contentious papers with the aid of the reviewers and the committee at large. Given the volume of papers requiring decisions, we limited full PC discussions to ~10% of papers that advanced to the second round of reviewing. We are thankful to all attending PC members, particularly those who were in time zones that meant attending well outside of regular working hours.

The result of all this process and hard work from the community is before you now. The 2022 proceedings include 256 accepted papers—the largest in USENIX Security history. We congratulate these authors for producing innovative and exciting work and look forward to the impact that these papers will have on our field in the years to come. The acceptance rate for the proceedings was 18%. During the process, roughly 54% of new submissions were advanced to the second round of reviews. Eight percent of all papers were accepted directly while 16% were given a major revision decision. The acceptance rate of major revision papers from the 2020–2021 cycle and 2021–2022 cycle was 85%. In terms of the final program, 41% were accepted upon their first submission, and the other 59% after a major revision.

Three important processes engage after the paper outcomes: Artifact Evaluation, Awards, and Posters. For the third year running, USENIX Security included an Artifact Evaluation. Special thanks go out to Clémentine Maurice and Cristiano Giuffrida for spearheading and updating this important process, with the introduction of three badges and a standard Artifact Appendix. A 105-person Artifact Evaluation Committee, assembled by Clémentine and Cristiano, evaluated a total of 114 artifacts, of which 107 received an ‘Artifact Available’ badge, 98 received an ‘Artifact Functional’ badge, and 65 received a ‘Results Reproduced’ badge.

The Distinguished Paper Award and Internet Defense Prize process starts with a call for nominations from the community. PC-nominated papers along with a small number of chair and Award Committee nominations are passed along to the full awards committee for extensive discussion and eventually voting. This year’s Award Committee consisted of Davide Balzarotti, Marina Blanton, Srđan Ćapkun, Nicholas Carlini, Mathias Payer, and Franziska Roesner. We are grateful for their assistance in narrowing down the excellent nominees and selecting the final winners. Finally, a Test of Time Awards Committee consisting of Dan Boneh, Srđan Ćapkun, Lorrie Cranor, Nick Feamster, Kevin Fu, Fabian Monrose, Paul Van Oorschot, David Wagner, Dan Wallach, and Wenyan Xu examined the history of USENIX Security proceedings to select the winners. In addition, we are thankful to Sara Rampazzi for taking on the role of poster chair for this year’s symposium. The posters selected this year reflected both new work and papers accepted for publication at the 2020 and 2021 symposia, previously held virtually, to provide those authors an opportunity to present their results in person.

Anyone who has had the pleasure to work on the organizing side of a USENIX conference knows that USENIX is a special place. We want to thank the entire USENIX team for their help in making this proceedings a reality: Casey Henderson, Natalie DeJarlais, Ginny Staubach, Jessica Kim, Liz Markel, Cheryl Fondacaro, Sarah TerHune, Julia Hendrickson, Camille Mulligan, Cathy Bergman, Mo Moreno, Jasmine Murcia, Arnold Gatilao, Olivia Vernetti, and Nicole Santiago. A special shout out goes to the Production team for helping us turn a set of submissions into a proceedings and a program. We want to thank William Enck for serving as our USENIX Board liaison and working to address issues that required a more macro lens. Finally, we wish to express our appreciation to Casey Henderson for her leadership as USENIX Executive Director and for helping to smooth over the increasingly complex process of coordinating decisions across thousands of submissions, authors, and review hours.

In closing, we want to express our immeasurable gratitude to the community without whom these proceedings would not be possible. As we hand the torch over to next year’s chairs, Joe Caladrino (US Federal Trade Commission) and Carmela Troncoso (École Polytechnique Fédérale de Lausanne), we know we leave you in excellent hands. We wish you all health and happiness now and in the years to come.

Kevin Butler, *University of Florida*

Kurt Thomas, *Google*

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