Editors' Introduction

Rob Jansen U.S. Naval Research Laboratory Washington, DC, USA robert.g.jansen7.civ@us.navy.mil Zubair Shafiq University of California, Davis Davis, CA, USA zubair@ucdavis.edu

It is our great pleasure to introduce Issue 4 of Volume 2025 of the Proceedings on Privacy Enhancing Technologies (PoPETs). PoPETs is a journal that publishes articles accepted to the annual Privacy Enhancing Technologies Symposium (PETS). To contribute to the free availability of scientific publications, PoPETs is published under the open-access Creative Commons Attribution-NonCommercial-NoDerivs license.

PoPETs/PETS uses a hybrid conference-journal model, one that since its inception has been adopted by many other conferences in the field. In this model, articles are published throughout the year at regular intervals, and the papers for the year are then presented at an annual conference. Reviewers can request revisions of submitted articles, which may then be revised by the authors and re-reviewed by a revision editor. PoPETs publishes four issues per year. By incorporating interactive revision and review across these issues, PoPETs provides a high-quality peer-review process that enables authors and reviewers to work together to produce and recognize significant scholarly contributions.

The PoPETs double-blind peer-review process is similar to other top-tier computer-security publications. The process includes initial review by the Editors-in-Chief for rules compliance and in-scope content, written reviews by multiple independent reviewers, author rebuttal, discussion among reviewers, and consensus decisions with disagreements resolved by the Editors-in-Chief or the Vice Chairs. The output of the review process is a set of reviews, a meta-review summarizing the reviewers' opinions after discussion (for papers that are not early-rejected during the first round), and one of the following decisions: *Accept, Revise*, and *Reject*.

Reviewing by the Editorial Board is performed in two rounds. In the first round, the Editors-in-Chief assign two reviewers from the Regular Editorial Board and a Vice Chair to all papers, and at the end of the round early decisions are made to reject certain papers that have two Reject scores from the reviewers. The remaining papers receive additional reviews in the second round for a total of four reviews (in a few cases, submissions received fewer or more reviews). One of the assigned reviewers is appointed as a metareview lead, who guides and summarizes the discussion into a meta-review. The assigned Vice Chair, along with the Editors-in-Chief, set a final decision for each paper.

Some articles had an external review drawn from a pool of experts nominated by the community¹ or identified by a member of the Editorial Board as a qualified reviewer. All reviews were sent

¹The nomination form is available at https://forms.gle/U3t73hLnUAfsZEY16.

tion 4.0 International License. To view a copy of this license visit https://creativecommons.org/licenses/by/4.0/ or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA. *Proceedings on Privacy Enhancing Technologies 2025(4), 1–4* 20 2025 Copyright held by the owner/author(s). https://doi.org/10.56553/popets-2025-0115

This work is licensed under the Creative Commons Attribu-

to the authors of papers that proceeded to the second round of review, and those authors were invited to provide a written rebuttal to the reviews. After the rebuttal period there was a discussion among the reviewers, other members of the Editorial Board, the Vice Chairs, and the Editors-in-Chief to reach a consensus decision for each paper. The meta-review lead then wrote a meta-review that summarized the discussion and the justification for the decision.

Authors of articles that received a Revise decision were invited to revise their submission according to a well-defined set of revision criteria included in the meta-review. An interactive revision process was used to enable authors to complete the revisions deemed necessary by the reviewers. The revision process was guided by a single revision editor whose identity was kept secret from the authors, and all communication between the authors and the revision editor was done (anonymously) through our article submission system. First, authors were instructed to aim for one of two revision deadlines: the first within one month of author notification, and the second within four months of author notification. Authors were asked to propose a revision schedule appropriate for their chosen deadline, and revision editors were asked to review and approve the schedules. Second, authors revised their submissions according to the meta-review and were able to ask the revision editor for clarifications about the revision criteria listed in the meta-review, for intermediate feedback, or for further direction. Revision editors reviewed intermediate versions, providing additional feedback when necessary, and ultimately issuing a final decision of Accept or Reject. Submissions accepted by the first (one month) revision deadline are published in this issue of PoPETs, and submissions accepted after the first (one month) but before the second (four month) revision deadline will be published in the next issue of PoPETs.

Articles submitted to this issue were reviewed by 177 members of the Editorial Board, 10 Vice Program Chairs, and 1 external reviewer. The submitted articles, reviews, and discussion were available to all members of the Editorial Board who did not have a conflict of interest with the authors of the article. To identify conflicts of interest, the membership of the Editorial Board was published before submissions were opened, and authors were asked to indicate members with whom any of the authors had a conflict. In addition, Editorial Board members were asked to list the authors and institutions with which they have conflicts of interest. Finally, the Editors-in-Chief also checked for missed conflicts. Editorial Board members were welcome to submit articles, while the Editors-in-Chief were precluded from doing so.

There were 225 submissions to this issue of PoPETs. 17 of the 225 submissions had been rejected from a previous issue and were resubmitted to the journal. For all of these resubmissions, the authors provided a summary of the changes that were made to the prior version of the paper that explained how concerns from previous reviews had been addressed.

(†)

Proceedings on Privacy Enhancing Technologies 2025(4)

Of the 225 submissions, 6 received a decision of *Accept*, and 47 received a decision of *Revise*. For the latter, a reviewer was assigned as a revision editor to guide the revision process as described above; 39 of these articles were revised and accepted by this issue's revision deadline and 8 articles are pending revision (and may be published in the next issue).

The remaining 172 submissions were not accepted to appear in this issue. 32 submissions were desk-rejected by the Editors-in-Chief without review by the Editorial Board for being out of scope, over the page limit, or non-anonymous. 135 submissions received a decision of *Reject*, 57 after the first round of reviewing, 78 after the second round of reviewing, and 0 during revision. For these rejected papers, reviewers identified either serious deficiencies, that the needed revisions are too large or unlikely to be successfully addressed in a short time, or issues of scope. Finally, 5 submissions were withdrawn by the authors during the review process.

In addition to the 225 new submissions, 14 papers were pending revision from the previous issue. Of these, 10 were accepted, 1 was rejected, and 3 were withdrawn.

Considering both new submissions and pending revisions, 55 articles in total are accepted in this issue and will be presented at PETS 2025.

For the 2025 volume, we continue an artifact-review procedure to collect, evaluate, and distribute artifacts related to accepted papers (e.g. source code, datasets, machine-generated proofs, formal specifications, and build environments).² Authors of accepted papers are encouraged (but not obliged) to submit their artifacts for review by an artifact-review committee. The committee performs some checks on artifact quality (e.g. documentation, licensing, and compilation); once approved, artifacts accompany the corresponding papers on the PETS website.

We thank the following people for making the fourth issue of PoPETs Volume 2025 possible:

General Chair for PETS 2025:

• Adam Aviv, George Washington University

Vice Program Chairs/Associate Editors-in-Chief:

- Gunes Acar, Radboud University
- Diogo Barradas, University of Waterloo
- Devashish Gosain, BITS Pilani
- Katharina Kohls, Ruhr University Bochum
- Pierre Laperdrix, Inria
- Athina Markopoulou, University of California, Irvine
- Rishab Nithyanand, University of Iowa
- Rebekah Overdorf, University of Lausanne
- Tobias Pulls, Karlstad University
- Paul Syverson, U.S. Naval Research Laboratory

Program Committee / Editorial Board:

- Omer Akgul, Carnegie Mellon University / RSA Conference
- Eman Alashwali, King Abdulaziz University (KAU)
- Ghada Almashaqbeh, University of Connecticut
- Mário Alvim, UFMG
- Frederik Armknecht, University of Mannheim
- Hassan Asghar, Macquarie University

- Erman Ayday, Case Western Reserve University
- Hannah (Hannaneh) B. Pasandi (Barahouei Pasandi), University of California - Berkeley
- Zinaida Benenson, Friedrich-Alexander-Universität Erlangen-Nürnberg
- Pascal Berrang, University of Birmingham
- Gergely Biczok, CrySyS Lab, Budapest Univ. of Technology and Economics
- Nataliia Bielova, Inria
- Igor Bilogrevic, Google
- Eleanor Birrell, Pomona College
- Cecylia Bocovich, The Tor Project
- Joe Calandrino, Unaffiliated
- Niklas Carlsson, Linköping University
- Sofia Celi, Brave
- Varun Chandrasekaran, University of Illinois Urbana-Champaign
- Panagiotis Chatzigiannis, Visa Research
- Yimin (Ian) Chen, University of Massachusetts Lowell
- Sherman S. M. Chow, Chinese University of Hong Kong
- Tianshuo Cong, Tsinghua University
- Jean-François Couchot, Univ. Bourgogne Franche-Comté
- Scott Coull, Google
- · Ha Dao, MPI-INF
- Debajyoti Das, KU Leuven
- Edwin Dauber, Widener University
- Alex Davidson, LASIGE, Universidade de Lisboa
- Alexandre Debant, Inria Nancy, France
- Martin Degeling, AI Forensics
- Soteris Demetriou, Imperial College London
- Nurullah Demir, Institute for Internet Security
- Damien Desfontaines, Tumult Labs
- Roger Dingledine, The Tor Project
- Ye Dong, Singapore University of Technology and Design
- Nir Drucker, IBM Research Israel
- Minxin Du, The Hong Kong Polytechnic University
- Markus Duermuth, Leibniz University Hannover
- Christoph Egger, Chalmers University of Technology
- Tariq Elahi, University of Edinburgh
- Roya Ensafi, University of Michigan
- Saba Eskandarian, University of North Carolina at Chapel Hill
- Vero Estrada-Galiñanes, The DECENT Lab
- Imane FOUAD, UM6P
- Alvaro Feal, ThousandEyes (Cisco)
- Natasha Fernandes, Macquarie University
- Bryan Ford, EPFL
- Kevin Gallagher, NOVA LINCS, NOVA School of Science and Technology
- Julien Gamba, Cisco ThousandEyes
- Alexander Gamero-Garrido, UC Davis
- Peng Gao, Virginia Tech
- Simson Garfinkel, BasisTech, LLC & Harvard University
- Christina Garman, Purdue University
- · Paolo Gasti, New York Institute of Technology
- Sepideh Ghanavati, University of Maine
- Zahra Ghodsi, Purdue University
- · Prosanta Gope, University of Sheffield

 $^{^{2}} https://petsymposium.org/artifacts.php \\$

Editors' Introduction

Proceedings on Privacy Enhancing Technologies 2025(4)

- Adam Groce, Reed College
- Thomas Gross, Newcastle University, United Kingdom
- Matteo Grosse-Kampmann, Rhine-Waal University of Applied Sciences and AWARE7 GmbH
- Johanna Gunawan, Maastricht University
- Andreas Haeberlen, University of Pennsylvania / Roblox
- Florian Hahn, University of Twente
- Lucjan Hanzlik, CISPA Helmholtz Center for Information Security
- Jamie Hayes, Google Deepmind
- Weijia He, University of Southampton
- Stephen Herwig, William & Mary
- Nguyen Phong Hoang, University of British Columbia
- Thang Hoang, Virginia Tech
- Nick Hopper, University of Minnesota
- Murtuza Jadliwala, The University of Texas at San Antonio
- Limin Jia, Carnegie Mellon University
- Aaron Johnson, U.S. Naval Research Laboratory
- Tushar Jois, City College of New York
- Marc Juarez, University of Edinburgh
- Nesrine Kaaniche, Institut Polytechnique de Paris
- Bailey Kacsmar, University of Alberta
- Stefan Katzenbeisser, University of Passau, Germany
- Megha Khosla, TU Delft
- Nadim Kobeissi, Symbolic Software
- Dhruv Kuchhal, Amazon, Inc.
- Piyush Kumar, University of Michigan
- NING LUO, University of Illinois Urbana-Champaign
- Duc Le, Visa Research
- Hieu Le, University of Michigan
- Jaewoo Lee, University of Georgia
- Zheng Li, Shandong University
- Kaitai Liang, TU Delft
- Kangjie Lu, University of Minnesota
- Nathan Malkin, New Jersey Institute of Technology
- Sunil Manandhar, IBM T.J. Watson Research Center
- Shrirang Mare, Western Washington University
- Rahat Masood, University of New South Wales (UNSW)
- Travis Mayberry, US Naval Academy
- Shagufta Mehnaz, Penn State University
- Maryam Mehrnezhad, Royal Holloway University of London, UK
- Sebastian Meiser, Universität of Lübeck
- David Mestel, Maastricht University
- Antonis Michalas, Tampere University
- Prateek Mittal, Princeton University
- Meisam Mohammady, Iowa State University
- Victor Morel, Chalmers University of Technology
- Pedro Moreno-Sanchez, IMDEA Software Institute
- Johannes Mueller, CNRS/LORIA Nancy
- Steven Murdoch, University College London
- Milad Nasr, Google Deepmind
- Joseph Near, University of Vermont
- Boel Nelson, Uppsala University; Aarhus University
- Nam Ngo, Privacy & Scaling Explorations, Ethereum Foundation
- Benjamin Nguyen, INSA Centre Val de Loire

- Shirin Nilizadeh, The University of Texas at Arlington
- Simon Oya, The University of British Columbia
- Catuscia Palamidessi, Inria
- Nisha Panwar, Augusta University
- Prajwal Panzade, Old Dominion University
- Panagiotis Papadopoulos, iProov Limited
- Jeongeun Park, Norwegian University of Science and Technology (NTNU)
- Dario Pasquini, RSAC Labs
- Christopher Patton, Cloudflare
- Sai Teja Peddinti, Google
- Balazs Pejo, CrySyS Lab, BME
- Amogh Pradeep, CrowdStrike
- Bart Preneel, KU Leuven
- Sazzadur Rahaman, University of Arizona
- Thilina Ranbaduge, Data61, CSIRO
- Vera Rimmer, KU Leuven
- Luc Rocher, University of Oxford
- Florentin Rochet, UNamur
- Andy Rupp, University of Luxembourg and KASTEL SRL
- Kavous Salehzadeh Niksirat, EPFL
- Sajin Sasy, CISPA Helmholtz Center for Information Security
- Theodor Schnitzler, Maastricht University
- Wendy Seltzer, Tucows
- Siamak Shahandashti, University of York, UK
- Supreeth Shastri, University of North Texas
- Yan Shvartzshnaider, York University
- Sandra Siby, New York University Abu Dhabi
- Lucy Simko, Barnard College
- Sachin Kumar Singh, University of Utah
- Georgios Smaragdakis, Delft University of Technology
- Xiangfu Song, National University of Singapore
- Thorsten Strufe, Karlsruhe Institute of Technology
- Wei Sun, Wichita State University
- Yixin Sun, University of Virginia
- Ajith Suresh, Technology Innovation Institute (TII), Abu Dhabi
- Gambs Sébastien, Université du Québec à Montréal
- Nina Taft, Google
- Rajat Tandon, Juniper Networks Inc.
- Jan Tolsdorf, The George Washington University
- Carmela Troncoso, EPFL
- Hikaru Tsuchida, Saitama Institute of Technology
- Anselme Tueno, SAP

• Tavish Vaidya, Google

• Fatih Turkmen, University of Groningen

• Tom Van Goethem, KU Leuven / Google

• Eugene Vasserman, Kansas State University

• Zachary Weinberg, Million Concepts LLC

• Tobias Urban, Institute for Internet Security; Westphalian University of Applied Sciences

• Haoyu Wang, Huazhong University of Science and Technol-

• Christian Weinert, Royal Holloway, University of London

• Christine Utz, Radboud University

• Luke Valenta, Cloudflare, Inc.

• Coby Wang, Visa Research

ogy

3

Proceedings on Privacy Enhancing Technologies 2025(4)

Rob Jansen and Zubair Shafiq

- Primal Wijesekera, ICSI & UC Berkeley
- Christo Wilson, Northeastern University
- Xusheng Xiao, Arizona State University
- Yunming Xiao, University of Michigan
- Luyi Xing, Indiana University Bloomington
- Diwen Xue, University of Michigan
- Yaxing Yao, Virginia Tech
- Arkady Yerukhimovich, George Washington University
- Shaohu Zhang, University of North Carolina at Pembroke
- Zhiyi Zhang, Meta
- Ziming Zhao, Northeastern University
- Yifeng Zheng, The Hong Kong Polytechnic University
- Yixin Zou, Max Planck Institute for Security and Privacy

Publications Chairs:

- Pouneh Nikkhah Bahrami, University of California, Davis
- Ryan Wails, Georgetown University & US Naval Research Laboratory

Artifact Chairs:

- Maximilian Noppel, Karlsruhe Institute of Technology
- Miti Mazmudar, University of Waterloo

Artifact Infrastructure Chair:

• Tobias Fiebig, Max-Planck-Institut für Informatik

Sponsorship Chairs:

- Steven Murdoch, University College London
- Susan McGregor, Columbia University

Publicity/Web Chairs:

- Sofia Celi, Brave
- Kat Hanna
- Mathilde Raynal, EPFL

Infrastructure Chairs:

- Roger Dingledine, The Tor Project
- Ian Goldberg, University of Waterloo

We thank the following external reviewers:

• Alberto Gutiérrez Torre, Barcelona Supercomputing Center (BSC)

We thank the anonymous revision editors for their hard work.

Sincerely,

Rob Jansen and Zubair Shafiq

Co-Editors-in-Chief of PoPETs Volume 2025, and Program Co-Chairs of PETS 2025