

CSET '16: 9th Workshop on Cyber Security Experimentation and Test

August 8, 2016 • Austin, TX



Sponsored by USENIX, the Advanced Computing Systems Association

CSET '16 will be co-located with the 25th USENIX Security Symposium (USENIX Security '16) and take place on Monday, August 8, 2016.

Important Dates

Submissions due: **Tuesday, May 3, 2016, 11:59 pm PDT (no extensions)**

Notification to authors: **Tuesday, June 14, 2016**

Final papers due: **Tuesday, July 12, 2016**

Workshop Organizers

Program Co-Chairs

Eric Eide, *University of Utah*

Mathias Payer, *Purdue University*

Program Committee

David Balenson, *SRI International*

Andy Bavier, *Princeton University*

Eric Bodden, *Paderborn University and Fraunhofer IEM*

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Jelena Mirkovic, *USC Information Sciences Institute (ISI)*

Haya Shulman, *Fraunhofer SIT*

Gianluca Stringhini, *University College London*

Michel van Eeten, *Delft University of Technology*

Dongyan Xu, *Purdue University*

Michael Zink, *University of Massachusetts Amherst*

Steering Committee

Terry V. Benzel, *USC Information Sciences Institute (ISI)*

Sean Peisert, *University of California, Davis, and Lawrence Berkeley National Laboratory*

Stephen Schwab, *USC Information Sciences Institute (ISI)*

Overview

The CSET workshop invites submissions on cyber security evaluation, experimentation, measurement, metrics, data, simulations, and testbeds.

The science of cyber security poses significant challenges. For example, experiments must recreate relevant, realistic features in order to be meaningful, yet identifying those features and modeling them is very difficult. Repeatability and measurement accuracy are essential in any scientific experiment, yet hard to achieve in practice. Few security-relevant datasets are publicly available for research use and little is understood about what "good datasets" look like. Finally, cyber security experiments carry significant risks if not properly contained and controlled, yet often require some degree of interaction with the larger world in order to be useful.

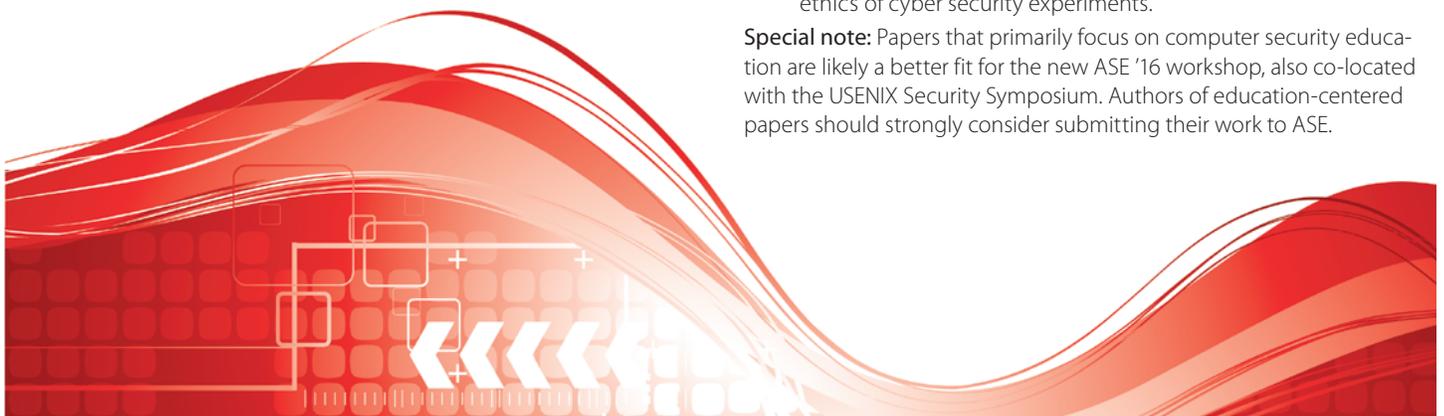
Meeting these challenges requires transformational advances, including understanding the relationship between scientific method and cyber security evaluation, advancing capabilities of underlying experimental infrastructure, and improving data usability.

Topics

Topics of interest include but are not limited to:

- **Science of cyber security:** e.g., experiences with and discussions of experimental methodologies; experiment design and conduct addressing cyber security challenges.
- **Measurement and metrics:** e.g., what are useful or valid metrics, test cases, and benchmarks? How do we know? How does measurement interact with (or interfere with) evaluation?
- **Testbeds and experimental infrastructure:** e.g., tools for improving speed and fidelity of testbed configuration; sensors for robust data collection with minimal testbed artifacts; support for interconnected non-IT systems such as telecommunications or industrial control.
- **Simulations and emulations:** e.g., what makes good ones? How do they scale (up or down)?
- **Data sets:** e.g., what makes good data sets? How do we know? How do we compare data sets? How do we collect new ones or generate derived ones? How do they hold up over time?
- **Ethics of cyber security research:** e.g., experiences balancing stakeholder considerations; frameworks for evaluating the ethics of cyber security experiments.

Special note: Papers that primarily focus on computer security education are likely a better fit for the new ASE '16 workshop, also co-located with the USENIX Security Symposium. Authors of education-centered papers should strongly consider submitting their work to ASE.



Workshop Format

Because of the complex and open nature of the subject matter, CSET '16 is designed to be a workshop in the traditional sense. Presentations are expected to be interactive, and presenters should assume that a substantial amount of time may be given to questions and audience discussion. Audience participation is encouraged. To ensure a productive workshop environment, attendance will be limited to 80 participants.

Submission Instructions

Research papers and position papers are welcome as submissions. Research papers should have a clearly stated methodology including a hypothesis and experiments designed to prove or disprove the hypothesis. Position papers, particularly those that critique past work, should present detailed solutions, either proposed or implemented. Submissions that recount experiences (e.g., from experiments or deployments) are especially desired; these should highlight takeaways and lessons learned that might help researchers in the future. For all submissions, the program committee will give greater weight to papers that lend themselves to interactive discussion among attendees.

Submissions must be no longer than 8 pages including all tables, figures, and references. Text should be formatted in two columns on 8.5"x11" paper using 10-point type on 12-point leading ("single-spaced"), with the text block being no more than 6.5"x9". Text outside the 6.5"x9" block will be ignored. Authors are encouraged to use the LaTeX and Word guides from the USENIX paper templates page at www.usenix.org/conferences/author-resources/paper-templates. The review process will be single-blind; submissions do not need to be anonymized.

All papers must be submitted in PDF format via the Web submission form linked from the Call for Papers Web page.

All papers will be available online to registered attendees before the workshop. If your accepted paper should not be published prior to the event, please notify production@usenix.org. The papers will be available online to everyone beginning on the day of the workshop. At least one author from every accepted paper must attend the workshop and present the paper.

Simultaneous submission of the same work to multiple venues, submission of previously published work, or plagiarism constitutes dishonesty or fraud. USENIX, like other scientific and technical conferences and journals, prohibits these practices and may take action against authors who have committed them. See the USENIX Conference Submissions Policy at www.usenix.org/conferences/author-resources/submissions-policy for details. Questions? Contact your program co-chairs, cset16chairs@usenix.org, or the USENIX office, submissions-policy@usenix.org.

Papers accompanied by nondisclosure agreement forms will not be considered. Accepted submissions will be treated as confidential prior to publication on the USENIX CSET '16 Web site; rejected submissions will be permanently treated as confidential.

