

SwitchCrypt: Navigating Tradeoffs in Stream Cipher Based Full Drive Encryption

Extended Abstract

ASPLOS'21 will be piloting the submission of *Extended Abstracts*. Your extended abstract — inspired by the model used for IEEE Micro Top Picks — should be *two pages long*, and it will be submitted separately from your main paper. The deadline for the extended abstract and the full paper will be identical. Except for the page limit, all other formatting and anonymity requirements are identical to those for full papers. Extended abstracts should be self-contained, though they may contain references to the full paper.

We *recommend*—but do not require—that you use the following organization for your abstract. Sections 1 through 5 should be a summary of your full paper. Section 1 motivates the paper; Section 2 describes limitations of the state of the art, if applicable; Section 3 presents the key new insight or insights of the paper; Section 4 presents the main artifacts described in the paper; Section 5 summarizes the key results and technical contributions of your paper. Finally, Section 6 should explain why the paper is suitable for ASPLOS, and Section 7 should state what its citation would be for a ten year test-of-time award. In Section 8, you may optionally include a paragraph describing how your paper has been revised, if it was previously submitted to another conference.

The extended abstracts must be submitted in printable PDF format and should contain a **maximum of 2 pages** of single-spaced two-column text, **not including references**. You may include any number of pages for references, but we suggest you limit your bibliography to only the most relevant references. The extended abstracts should use the same formatting as the regular papers. If you are using L^AT_EX [?] to typeset your extended abstract, then we suggest that you use [this template](#). If you use a different software package to typeset your paper, then please adhere to the guidelines given in Table ??.

The [sample file](#) for the extended abstract includes guidelines the information your abstract should include.

The references section of your extended abstract will not count towards the two page limit. We suggest you limit your bibliography to only the most relevant references [?]. The extended abstract should not have an abstract. Start with Section 1.

1. Motivation

- What is the problem your work attacks? Be specific.
- Why is it an important problem?

Articulate the importance of this problem to the broader ASPLOS community, using as little jargon as possible. *Be specific*

about the problem you are addressing; it should be the one that your paper directly addresses.

2. Limitations of the State of the Art

- What is the state of the art in solving this problem today (if any)?
- What are its limits?

3. Key Insights

- What are the one or two key new insights in this paper?
- How does it advance the state of the art?
- What makes it more effective than past approaches?

4. Main Artifacts

- What are the key artifacts presented in your paper: a methodology, a hardware design, a software algorithm, an optimization or control technique, etc.?
- How were your artifacts implemented and evaluated?

5. Key Results and Contributions

- What are the most important *one or two* empirical or theoretical results of this approach?
- What are the contributions that this paper makes to the state of the art? List them in an *itemize* section. Each contribution should be no more than a few sentences long.
- Clearly describe its advantages over past work, including how it overcomes their limitations.

6. Why ASPLOS

ASPLOS emphasizes multidisciplinary research; explain how this paper emphasizes synergy of *two or more ASPLOS areas*: architecture, programming languages, operating systems, and related areas (broadly interpreted).

If you are unsure whether your paper falls within the scope of ASPLOS, please check with the program chairs – ASPLOS is a broad, multidisciplinary conference and encourages new topics.

7. Citation for Most Influential Paper Award

Provide the citation for your paper if it won the Most Influential Paper award. The citations for past winners are available [here](#).

8. Revisions

References

Optional: Describe how this paper has been revised, if it was previously submitted to another conference.