

3rd CHES forum: Topics in hARdware SEcurity and RISC-V (TASER) Prague, September 10th, 2023



image source: Jorge Franganillo (<https://www.flickr.com/photos/franganillo/41973193264>, cropped to fit) CC BY 2.0

Call for Presentations

The open nature of RISC-V and the associated community and eco-system have arguably led to a “golden era” of research and innovation within the field of computer architecture. This, in turn, has positively impacted the associated area of hardware security, where significant existing challenges remain and new challenges continue to emerge. RISC-V offers opportunities for academic and industrial research and development that stem from the ISA’s extensible, configurable nature and the transparency afforded by access to high-quality HDL implementations. Established in 2021 as a CHES forum, TASER aims to 1) establish and solidify RISC-V as a topic of interest for CHES, and 2) act as an interface between the RISC-V and CHES communities. The TASER web page is accessible at

<https://ches.iacr.org/2023/forum.php>

Organized as part of CHES, and held in-person as a half-day CHES forum, TASER will include a mixture of invited and submitted presentations. As such, we invite submission of presentation proposals on topics including, but not limited to, any of the following

General topics:

- security-oriented (co-)processor implementations
- optimised, security-oriented software implementation
- security- and performance-oriented ISEs
- security-oriented verification
- TEEs and related technologies
- memory protection and control-flow integrity
- privacy-preserving computing (e.g., MPC, FHE)
- side-channel attacks and countermeasures.

Specific topic(s) for TASER 2023:

- scalar and vector instruction set extensions for PQC

where, for any topic, some aspect specific to RISC-V is clearly identifiable. Note that there will be no formal proceedings in order to not preclude submission of the same work to a journal or conference with proceedings; this is *not* a call for (full) papers, so proposals for presentations on 1) exploratory ideas or in-progress work, or 2) relevant hardware or software artefacts, tools, or techniques, would be encouraged.

Instructions for Authors

1. Prepare the presentation proposal. There is no template or similar, but, to simplify the review process, the proposal should be a 1-page PDF document which includes a list of authors (including affiliations, and an identified speaker), a title, an abstract¹, and a list of any references and/or associated resources.
2. Submit the presentation proposal via

<https://easychair.org/conferences/?conf=taser2023>

before the deadline, 23/06/2023 23 : 59 : 59 Anywhere on Earth (AoE).

3. The organising committee will collectively review submitted proposals, using two main criteria: 1) individual technical merit, and 2) overall fit with constraints on and composition of the forum. We expect to notify authors of the outcome by 14/07/2023.

Organising Committee

Andy Dellow	: Huawei	Elke De Mulder	: Google
Benedikt Gierlich	: KU Leuven	Colin O’Flynn	: NewAE Technology Inc.
Daniel Page	: University of Bristol	Markku-Juhani Saarinen	: PQShield

¹For successful presentation proposals, the abstract would ideally be reusable for the forum web-site; use of “HTML-friendly” content would therefore be useful, although not a requirement per se.