

Call For Participation

HPC Systems Professionals Workshop - HPCSYSPROS24 Held in conjunction with SC24: The International Conference on High Performance Computing, Networking, Storage, and Analysis.

Workshop Website: <https://sighpc-syspros.org/workshops/2024>

Submission Website: [SC Submission link](#)

Contact: workshop@sighpc-syspros.org

Supercomputing systems present complex challenges to personnel who design, deploy and maintain these systems. Standing up and maintaining these systems requires novel solutions which are unique to high performance computing. The success of any HPC center depends on stable and reliable systems, and HPC Systems Professionals are crucial to that success.

The Eighth Annual HPC Systems Professionals Workshop will bring together HPC systems professionals to share best practices, discuss cutting-edge technologies, and advance the state-of-the-practice for HPC systems. This Call For Papers (CFP) requests that participants submit papers, slide presentations, or 5-minute Lightning Talk proposals along with relevant artifacts (code segments, test suites, configuration management templates). Artifacts are not mandatory, but highly encouraged.

Authors are invited to submit original, high-quality papers, presentations, and artifacts with an emphasis on solutions that can be implemented by other members of the HPC systems community. All submissions should be in PDF format. As appropriate to the material, papers should be between 2 and 8 pages including tables, figures and appendices, but excluding references. Slide decks should consist of less than 30 slides. Lightning Talks should be submitted as a 1-2 paragraph abstract for a talk of approximately 5 minutes in length. Artifact descriptions should be 1-2 pages. All submissions should be formatted according to the [SC Proceedings template](#). Per SC policy, margins and font sizes should not be modified. Papers submitted with artifact(s) are required to have an appended artifact descriptor as a part of the requirements for reproducibility. Proceedings of all accepted submissions for the workshop will be published and archived in the workshop Github repository. Additionally, materials will be uploaded to Zenodo where DOI will be assigned for proper citation. To view last year's proceedings please visit: <https://github.com/HPCSYSPROS/Workshop23>. Last year workshop proceedings were also published in ACM SC-W'23: Proceedings of the SC '23 Workshops <https://dl.acm.org/doi/proceedings/10.1145/3624062>.

Topics of Interest

Topics of interest include, but are not limited to:

- Cluster configuration and software management
- Cybersecurity and data protection
- Performance tuning and benchmarking
- Monitoring, Mean-time-to-failure, ROI or Resource utilization
- Resource manager and job scheduler configuration
- HPC storage solutions
- Composable infrastructure and containers
- Elastic workloads or optimizations for workload types (e.g., bioinformatics, new-user cases)

- Web-based cluster, and other management front ends
- User interference detection and mitigation methods for shared resources

Artifacts

Artifact is a term for digital non-prose files that support your paper. For instance they could be a code segment, test suite, configuration management templates, diagrams, etc. that can be used by the reader to demonstrate concepts, workflows, or utilities that are shown in the associated submission.

- Architecture Descriptions could include an interesting network, storage or system architecture, or a hybrid thereof at a data-center level. It would be documented by multiple diagrams describing the architecture and a four page description of the architecture and why it is interesting.
- Small Middleware or Systems Software could include an artifact of code such as a Bash or Python Script. Additionally, there should be strong documentation that would make the artifact reproducible and a two page abstract additional to the artifact and documentation.
- System Configuration and Configuration Management could include interesting configuration or configuration management and the interactions between multiple configured applications. Examples of this may be a Puppet module, a config file that helps do something interesting, or more likely a group of config files and configuration management. Documentation for reproducing the artifact on a system as well as a two page abstract would be required.

We will also accept proposals for different types of artifacts from those that have been listed. If there is a type of artifact that is not listed that is a high-quality artifact with an emphasis on reproducibility and implementation, we invite you to propose it to the committee. If the committee agrees, we will amend the CFP to reflect the new artifact and the requirements for the artifact.

We will use Linklings for all submissions to the workshop, and we will use the review system in Linklings for all feedback.

For submitted artifacts, we will require that submitters submit a Git URL at a specific commit that the committee can clone and review. The committee will review and accept pull requests for updates during the different stages of review. The final artifacts will be hosted on the [HPCSYSPROS Github](#) as well as in Zenodo for posterity.

Important Dates

- Submissions open: 5/28
- Submissions close: 8/2
- Initial Review Window: 8/2 - 8/16
- Secondary Review Window: 8/23 - 8/30
- Notifications of Accepted Submissions - 9/6

Committee

Workshop Chair: John Blaas

Program Chair: Jared Baker

Committee Members:

Blaise Hartman, David Clifton, Betsy Hillery, Hon Wai Leong, John Legato, Michael Hartman, Gary Skouson, Stephen Fralich, Kurt Maier