ICPE'22 Companion Welcome Message

ICPE'22 is in the past, and for the first time the conference's companion proceedings are published in form of post-conference proceedings. The main motivation of this was to give authors of workshop or short papers an opportunity to improve their archived research papers based on discussions during the conference. This post-proceedings collect material for the following tracks:

Work-in-Progress and Vision Track:

The work-in-progress and vision track this year was organized by Cristina L. Abad. The goal of this track was for attendees to present, and get feedback on, early ideas. Two papers were accepted in this track.

Poster and Demonstrations Track:

Christoph Laaber and Wen Xia headed the poster and demonstrations track. Four papers were accepted and presented in a special session on the first conference day.

Tutorials:

Under the leadership of David Daly and Shuibing He, three high-quality tutorials were organized at the conference this year:

- "Optimizing the Performance of Fog Computing Environments Using AI and Co-Simulation", by Shreshth Tuli and Giuliano Casale

- "Automated Benchmarking of cloud-hosted DBMS with benchANT", by Daniel Seybold and Jörg Domaschka

- "SPEC Server Efficiency Benchmark Development - How to Contribute to the Future of Energy Conservation", by Maximilian Meissner, Klaus-Dieter Lange, Jeremy Arnold, Sanjay Sharma, Roger Tipley, Nishant Rawtani, David Reiner, Mike Petrich, Aaron Cragin

Data Challenge Track:

The first data challenge track ever at ICPE was organized by Cor-Paul Bezemer (University of Alberta), David Daly (MongoDB) and Weiyi Shang (Concordia University), with the support of 5 PC members. In this track, an industrial performance dataset was provided by MongoDB. The participants were invited to come up with research questions about the dataset, and study those. The challenge was open-ended: participants can choose the research questions that they find most interesting. The data challenge track accepted 4 short papers, in which the proposed approaches and/or tools and their findings are discussed.

In addition to the main conference and its tracks, we were also very happy to host six co-located workshops:

HotCloudPerf 2022

The 5th Workshop on Hot Topics in Cloud Computing Performance was organised by Cristina L. Abad (ESPOL, Ecuador), Simon Eismann (University of Würzburg, Germany), and Alexandru Iosup (VU Amsterdam, the Netherlands) supported by 17 program committee members.

The workshop took place as a 4h virtual event featuring 6 workshop paper presentations and 3 invited keynote talks:

- "Scaling Open Source Big Data Cloud Applications is Easy/Hard" by Paul Brebner (Instaclustr, California, US)

- "Onefold Tuning for System and DNN Model Parameters" by Lydia Chen (TU Delft, Netherlands)

- "Serverless Machine Learning Serving for Scalable Workflows" by Evgenia Smirni (College of William & Mary, Virginia, US)

The full program can be found at https://hotcloudperf.spec.org/2022.

LTB 2022

The 10th International Workshop on Load Testing and Benchmarking of Software Systems (LTB 2022) was organized by Alexander Podelko (MongoDB), Heng Li (Polytechnique Montréal), and Nima Mahmoudi (TELUS Communications), with support from 9 PC members. This 5-hour workshop included 6 submitted research papers / presentations, 2 invited keynote talks by Prof. Jianmei Guo (East China Normal University) and Prof. Andre van Hoorn (University of Hamburg), and 1 special panel discussion on performance education and training.

The full program can be found at https://ltb2022.eecs.yorku.ca/#program.

WOSP-C 2022

The 7th Workshop on Challenges in Performance Methods for Software Development (WOSP-C 2022) was organized by Catalina M. Lladó (Universitat Illes Balears, Spain) and Daniele Di Pompeo (University of L'Aquila, Italy) supported by 7 program committee members. The workshop took place as a virtual event featuring 4 paper presentations and 2 invited keynote talks:

- "Quantitative Evaluation of Non-Markovian systems: A Model Driven Engineering Approach" by Laura Carnevali (University of Florence, Italy)

- "Software Performance Modeling: Then, Now and Beyond" by Connie U. Smith (L&S Computer Technology, Inc.)

The full program can be found at https://wosp-c.github.io/wosp-c-22/.

PECS 2022

The 2nd Workshop on Performance and Energy-efficiency in Concurrent Systems (PECS 2022) was organized by Alessandro Pellegrini (University of Rome Tor Vergata) and Romolo Marotta (University of Rome Tor Vergata). The workshop has featured a keynote speech by Pierangelo Di Sanzo (University of L'Aquila) on "Heuristic-driven vs. Model-driven Performance Optimization of Multi-threaded Applications Under a Power Cap". We are happy that the interest in this workshop has been high, because it proves the importance of the tradeoff between performance and energy efficiency in systems of all kinds. The full program can be found at https://pecs-workshop.github.io/2022/.

PANDA 2022

The First International Workshop on Performance-Data Analytics and Data-Management (PANDA 2022) was organized by André Bauer (University of Würzburg, Germany) and Jörg Domaschka (Universität Ulm, Germany) with support from four program committee members.

The workshop took place as a virtual event co-located with the annual meeting of the SPEC RG Predictive Data Analytics Working Group featuring the keynote talk "Modeling and Optimization Expand Results of Load Testing and Benchmarking".

ITSMS 2022

The The First International Workshop on Information Technology Storage Management Specification took place as a four-hour virtual event featuring eight invited invited talks:

- "International and Domestic Standards Updates on Storage Technologies" by Wei Sun (China Electronics Standardization Institute, China)
- "Scalability Support for SMI-S in WAN" by Ze Deng (China University of Geosciences (Wuhan), China)
- "Innovative Practices for Diverse Storage Types of China Mobile" by Yi Feng (China Mobile, China)
- "Notification of device information and status for Ethernet-based NVMe" by Lili Zhao (Huawei, China)
- "Introduction and Analysis of Storage System Standands" by Xiao Zhang (Northwestern Polytechnical University, China)
- "An Introduction to Common Profiles in Storage Management Standards" by Hai Zhou (Huazhong University of Science and Technology, China)
- "An Introduction to Block Devices in Storage Management Standards" by Guanglei Xu (Huazhong University of Science and Technology, China)
- "Exploration and practice of container storage interface (CSI) standard" by Haijun Zhang (Inspur, China)

The full program can be found at https://itsms-22.github.io/.

We hope that you enjoy reading about the tremendous effort that went into the tracks at ICPE, and gain valuable insights for your own works.

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