

With a total of 19 [research papers](#), 7 papers in the [Industry Track](#), 10 [demos and posters](#), and 6 [work in progress](#) contributions, ICPE'16 has a lot of exciting topics to offer for all performance specialists and engineers!

ICPE 2016 Research track (19 accepted papers)

1. *Weikun Wang, Giuliano Casale, Ajay Kattepur and Manoj Nambiar*
Maximum Likelihood Estimation of Closed Queuing Network Demands from Queue Length Data
2. *Niklas Carlsson*
Optimized eeeBond: Energy Efficiency with non-Proportional Router Network Interfaces
3. *Philipp Lengauer, Verena Bitto and Hanspeter Mössenböck*
Efficient and Viable Handling of Large Object Traces
4. *David Maplesden, Ewan Tempero, John Hosking and John Grundy*
A Cost/Benefit Approach to Performance Analysis
5. *Assaf Eisenman, Ludmila Cherkasova, Guilherme Magalhaes, Qiong Cai, Paolo Faraboschi and Sachin Katti*
Parallel Graph Processing: Prejudice and State of the Art
6. *Sarat Sreepathi, Ed D'Azevedo, Bobby Philip and Patrick Worley*
Communication Characterization and Optimization of Applications Using Topology-Aware Task Mapping on Large Supercomputers
7. *Peter Hofer, David Gnedt, Andreas Schörgenhumer and Hanspeter Mössenböck*
Efficient Tracing and Versatile Analysis of Lock Contention in Java Applications on the Virtual Machine Level
8. *Manjula Peiris and James Hill*
Automatically Detecting "Excessive Dynamic Memory Allocations" Software Performance Anti-Pattern
9. *Vojtěch Horký, Jaroslav Kotrč, Peter Libič and Petr Tuma*
Analysis of Overhead in Dynamic Java Performance Monitoring
10. *Juan Pablo Sandoval Alcocer, Alexandre Bergel and Marco Tulio Valente*
Learning From Source Code History to Identify Performance Failures
11. *Jesun Firoz, Martina Barnas, Marcin Zalewski and Andrew Lumsdaine*
The value of variance
12. *Ravjot Singh, Cor-Paul Bezemer, Weiyi Shang and Ahmed E. Hassan*
Optimizing the Performance-Related Configurations of Object-Relational Mapping Frameworks Using a Multi-Objective Genetic Algorithm
13. *Alireza Khoshkbarforoushha and Rajiv Ranjan*
Resource and Performance Distribution Prediction for Large Scale Analytics Queries
14. *Tatsuma Matsuki and Naoki Matsuoka*
A Resource Contention Analysis Framework for Diagnosis of Application Performance Anomalies in Consolidated Cloud Environments
15. *Zhan Qiu, Juan F. Perez and Peter Harrison*
Tackling Latency via Replication in Distributed Systems
16. *Mark Grechanik, Qi Luo, Denys Poshyvanyk and Adam Porter*
Enhancing Rules For Cloud Resource Provisioning Via Learned Software Performance Models
17. *Piotr Rygielski, Viliam Simko, Felix Sittner, Doris Aschenbrenner, Samuel Kounev and Klaus Schilling*

Automated Extraction of Network Traffic Models Suitable for Performance Simulation

18. *Supreeth Subramanya, Zain Mustafa, David Irwin and Prashant Shenoy*
Beyond Energy-Efficiency: Evaluating Green Datacenter Applications for Energy-Agility
19. *Sara Fioravanti, Simone Mattolini, Fulvio Patara and Enrico Vicario*
Experimental performance evaluation of different data models for a reflection software architecture over NoSQL persistence layers

ICPE 2016 Industry Track (7 accepted papers)

1. *Luyang Wang, Pallab Bhattacharya, Yao-Min Chen, Shrinivas Joshi and James Cheng*
End-to-End Java Security Performance Enhancements for Oracle SPARC Servers
2. *Paul Brebner*
Automatic Performance Modelling from Application Performance Monitoring (APM) Data: An Experience Report
3. *Jóakim von Kistowski, Hansfried Block, John Beckett, Cloyce Spradling, Klaus-Dieter Lange and Samuel Kounev*
Variations in CPU Power Consumption
4. *Amit Kalele and Anubhav Jain*
Accelerating The Optimal Trade-Off Circular Harmonic Function Filter Design on Multicore Systems
5. *Michael Steindorfer and Jurgen Vinju*
Performance Modeling of Maximal Sharing
6. *Qi Wang, Lucy Cherkasova, Jun Li and Haris Volos*
Interconnect Emulator for Aiding Performance Analysis of Distributed Memory Applications
7. *Patrick Pegus Ii, Benoy Varghese, Tian Guo, David Irwin, Prashant Shenoy, Anirban Mahanti, James Culbert, John Goodhue and Chris Hill*
Analyzing the Efficiency of a Green University Data Center

ICPE 2016 Demos and Posters (10 accepted submissions)

1. *Ji Xue, Evgenia Smirni, Robert Birke and Lydia Y. Chen*
PROST: Prediction for Resource Usages with Spatial and Temporal Dependencies
2. *Nick Principe and Vernon Miller*
SPEC SFS 2014: Application-Level Storage Performance Evaluation
3. *Christoph Heger, André van Hoorn, Dušan Okanović, Stefan Siegl and Alexander Wert*
diagnoseIT: Expert-Guided Automatic Diagnosis of Performance Problems in Enterprise Applications
4. *Vincenzo Ferme and Cesare Pautasso*
Integrating Faban with Docker for Performance Benchmarking
5. *David Schmidt, Lisa Roderick and Andrew Bond*
Inspiring Virtualization Innovation - SPECvirt_dc
6. *Ahmed Ali-Eldin, Alexey Ilyushkin, Bogdan Ghit, Nikolas Herbst, Alessandro Papadopoulos and Alexandru Iosup*
Benchmarking Auto-Scaling Algorithms
7. *Yasir Ibrahim and Waleed Ahmed*

- New Technique Using Multiple Symmetric keys for Multilevel Encryption
8. *Alexandru Iosup, Samuel Kounev and Kai Sachs*
SPEC Research Group's Cloud Working Group (poster)
 9. *Nikolas Roman Herbst, Andreas Weber, Samuel Kounev and Henning Groenda*
BUNGEE: An Elasticity Benchmark for Self-Adaptive IaaS Cloud Environments (poster)
 10. *Jürgen Walter, André van Hoorn, Heiko Koziolk, Dušan Okanović and Samuel Kounev*
The Vision of Declarative Performance Engineering (poster)

ICPE 2016 Vision and Work in Progress track (6 accepted papers)

1. *Divya Gupta, Lucas Perronne and Sara Bouchenak*
BFT-Bench: A Framework to Evaluate BFT Protocols
2. *Jürgen Walter, André van Hoorn, Heiko Koziolk, Dušan Okanović and Samuel Kounev*
Asking "What?", Automating the "How?": The Vision of Declarative Performance Engineering
3. *Dheeraj Chahal, Rupinder Virk and Manoj Nambiar*
Performance Extrapolation of IO Intensive Workloads
4. *Sourav Medya, Ludmila Cherkasova, Guilherme Magalhaes, Kivanch Ozonat, Chaitra Padmanabha, Jiban Sarma and Imran Sheikh*
Towards Performance and Scalability Analysis of Distributed Memory Programs on Large-Scale Clusters
5. *Mathias Menninghaus and Elke Pulvermüller*
Towards Using Code Coverage Metrics for Performance Comparison on the Implementation Level
6. *Thomas Begin and Alexandre Brandwajn*
Predicting the System Performance by Combining Calibrated Performance Models of its Components - A Preliminary Study

ICPE 2016 Doctoral Symposium

- Holger Knoche*
Sustaining Runtime Performance while Incrementally Modernizing Transactional Monolithic Software towards Microservices
- David Georg Reichelt and Stefan Kühne*
Empirical Analysis of Performance Problems at Code Level