The International Conference on Performance Engineering (ICPE) provides a forum for the integration of theory and practice in the field of performance engineering. ICPE has grown out of the ACM Workshop on Software Performance (WOSP) and the SPEC International Performance Engineering Workshop (SIPEW). It brings together researchers and industry practitioners to share ideas and present their experiences, discuss challenges, and report state-of-the-art and in-progress research on performance engineering of software and systems. Topics of interest include:

**Performance and software development processes**
- Techniques to elicit and incorporate performance, availability, power and other extra-functional requirements throughout the software and system lifecycle
- Agile performance-test-driven development
- Performance requirements engineering and design for software performance predictability
- Software performance modeling, patterns and anti-patterns

**Performance modeling and prediction**
- Languages, annotations, tools and methodologies to support model-based performance engineering
- Analytical, simulation, statistical, AI-based, and hybrid modeling/prediction methods
- Automated model discovery and model building
- Model validation and calibration techniques

**Performance measurement and experimental analysis**
- Performance measurement, monitoring, and workload characterization techniques
- Test planning, tools for performance, load testing, measurement, profiling and tuning
- Model extraction for functional or partly-functional systems
- Methodologies for performance testing and for functional testing
- Reproduction and reproducibility of performance studies

**System management/optimization**
- Use of models for run-time configuration/management
- Online performance prediction and model parameter estimation
- Adaptive resource management

**Benchmarking, configuration, sizing, and capacity planning**
- Benchmark design and benchmarking methods, metrics, and suites
- Development of new, configurable, and/or scalable benchmarks
- Use of benchmarks in industry and academia
- System configuration, sizing and capacity planning techniques

**Performance in Cloud, virtualized and multi-core systems**
- Modeling, monitoring, and testing of cloud platforms and applications
- Performance management of virtualized machines, storage and networks
- Performance engineering of multi-core and parallel systems

**Performance and power**
- Algorithms for combined power and performance management
- Instrumentation, profiling, modeling and measurement of power consumption
- Power/performance engineering in grid/cluster/cloud/mobile computing systems

**Performance modeling and evaluation in other domains such as:**
- Web-based systems, e-business, web services, SOAs
- Transaction-oriented and event-based systems
- Embedded and autonomous systems
- Real-time and multimedia systems
- Peer-to-peer, mobile and wireless systems

Multiple different kinds of papers are sought: basic and applied research, industrial/experience reports, and work-in-progress/vision papers. Different acceptance criteria apply for each category. The conference proceedings will be published by ACM and included in the ACM Digital Library. The best conference paper will receive a Best Paper Award.

---

**Important Dates**

<table>
<thead>
<tr>
<th>Type of Submission</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research paper submissions:</td>
<td>24 Sep 2012</td>
</tr>
<tr>
<td>Research paper notification:</td>
<td>14 Dec 2012</td>
</tr>
<tr>
<td>Industrial/experience paper submissions:</td>
<td>30 Oct 2012</td>
</tr>
<tr>
<td>Poster and demo papers submissions:</td>
<td>13 Nov 2012</td>
</tr>
<tr>
<td>Tutorial proposals submissions:</td>
<td>10 Nov 2012</td>
</tr>
<tr>
<td>Work-in-progress/vision paper submissions:</td>
<td>14 Jan 2013</td>
</tr>
</tbody>
</table>

---

**Organizing Committee**

**General Chairs**
- Petr Tůma, Charles University, Czech Republic
- Giuliano Casale, Imperial College London, UK

**Program Chairs**
- J. Nelson Amaral, University of Alberta, Canada
- Tony Field, Imperial College of London, UK

**Industrial Chair**
- Seetharami R. Seelam, IBM Research, USA

**Tutorial Chair**
- Mirco Tribastone, LMU Munich, Germany

**Demos and Posters Chair**
- Kustuth Joshi, AT&T Labs Research, US

**Publicity Chairs**
- John Murphy, University College Dublin, Ireland
- Kai Sachs, SAP AG, Germany

**Finance Chair**
- Lubomir Bulej, Charles University, Czech Republic

**Publications Chair**
- Evgenia Smirni, College of William and Mary, USA

**Awards Chairs**
- Lucy Cherkasova, HP Labs, USA
- Vittorio Cortellessa, Universita’ di L’Aquila, Italy

**Publicity Chairs**
- Martin Arlitt, HP Labs, USA
- University of Calgary, Canada
- Alberto Avritzer, Siemens Corporate Research, USA
- Steffen Becker, University of Paderborn, Germany
- Anne Benoit, ENS Lyon – LIP, France
- Steve Blackburn, ANU, Australia
- Andre Bondi, Siemens Corporate Research, USA
- Edson Borin, Universidade de Campinas, Brazil
- Jeremy Bradley, Imperial College London, UK
- Lydia Chen, IBM Zurich, Switzerland
- Lucy Cherkasova, Hewlett-Packard Laboratories, USA
- Lawrence Chung, University of Texas at Dallas, USA
- Susanna Donatelli, Universita’ di Torino, Italy
- Sandhya Dwarkadas, University of Rochester, USA
- Dick Epema, Delft University of Technology, Netherlands
- Dorothea Feitelson, Hebrew University, Israel
- Sebastian Fischmeister, University of Waterloo, Canada
- Stephen Gilmore, University of Edinburgh, UK
- Lars Grunke, TU Kaiserslautern, Germany
- Wilhelm Hasselbring, University of Kiel, Germany
- Michael Hind, IBM T.J. Watson Research Center, USA
- Robert Hundt, Google Inc., USA
- Alexandru Iosup, TU Delft, The Netherlands
- Stephen Jarvis, University of Warwick, UK
- Carlos Juiz, University of the Balearic Islands, Spain
- David Kaelli, Northeastern University, USA
- William Knottenbelt, Imperial College London, UK
- Samuel Kounev, Karlsruhe Institute of Technology, Germany
- Heiko Koziolek, ABB Corporate Research, Germany
- Anirban Mahanti, NICTA, Australia
- Pat Martin, Queen’s University, Canada
- Daniel Menasce, George Mason University, USA
- Raffaele Mirandola, Politecnico di Milano, Italy
- David Pearce, Victoria University of Wellington, N. Zealand
- Dorina Petriu, Carleton University, Canada
- Meikel Poess, Oracle Corporation, USA
- Lawrence Rauchwerger, Texas A&M University, USA
- Ralf Reussner, Karlsruhe Institute of Technology, Germany
- George Riley, Georgia Institute of Technology, USA
- Alma Riska, College of William and Mary, USA
- Jerry Rolly, Carleton University, USA
- Peter Sweeney, IBM T.J. Watson Research Center, USA
- Mirco Tribastone, LMU Munich, Germany
- Catia Trubiani, Universita’ di L’Aquila, Italy
- Carey Williamson, University of Calgary, Canada
- Murray Woodside, Carleton University, Canada
- Peng Wu, IBM T.J. Watson Research Center, USA
- Xiaoyun Zhu, VMware, USA