

## Communicating Process Architectures (CPA) 2018

The 40th. WoTUG Conference on Concurrent and Parallel Systems

Sunday (evening) 19th. - Wednesday (lunch) 22rd. August

<http://wotug.cs.unlv.edu/cpa2018> - E-mail: [cpa2018@wotug.org](mailto:cpa2018@wotug.org)

Host institute: Technische Universität Dresden, Dresden, Germany

This is the Call for Papers for Communicating Process Architectures 2018, the 40th WoTUG conference on concurrent and parallel systems. CPA 2018 will be held at Technische Universität Dresden and is hosted by the Faculty of Computer Science. Conference sessions will take place at the Faculty.

### Important Dates

Paper submission: 30th. April 2018  
Final revised CRC due: 11th. June 2018

Notification of acceptance: 21th. May 2018  
Author registration: 11th. June 2018

### Themes for CPA 2018

CPA is concerned with concurrency at all scales. It aims to bridge the gap between mathematical theories of concurrency and its practical application to the design, implementation and validation of parallel applications for embedded, multicore and distributed computing systems. Areas of interest to the CPA community include, but are not limited to:

- design and implementation languages and environments for concurrent systems;
- runtimes for parallel and distributed applications;
- design patterns and implementation techniques for concurrent software;
- theoretical approaches to concurrency;
- formal specification of concurrent systems and formal languages supporting these approaches;
- modelling and model-driven development of concurrent software architectures;
- verification and analysis of concurrent systems;
- model-checking techniques and tools for development and analysis;
- design and effective use of multicore/manycore processors and massively parallel computer architectures;
- tools and languages for hw/sw co-design;
- hw/sw approaches to reconfigurable computing;
- teaching concurrency at school and university;
- concurrent applications within academia and industry, such as complex systems simulation, robotic control and high-performance engineering;
- reports on experience with concurrency in an industrial context.

Details of how to submit papers, proposals for informal fringes, and proposals for workshops can be found on the *Authors*, *Fringes* and *Workshops* pages respectively of the conference website (<http://wotug.cs.unlv.edu/cpa2018>).

Accepted papers will be published in the CPA 2018 Proceedings by IOS Press (in their Concurrent Systems Engineering Series). All submissions will be refereed by an international panel of academic and industrial reviewers, with extensive feedback given to authors. Authors retain copyright on their papers, shared with the publishers. This means that authors have the right to reuse any material from these papers in future publications (e.g. in extended revisions for journals).

CPA runs in a single track over two and a half days, with space for approximately 20 half-hour presentations and a number of 1 or 2 hour workshops. In addition, two evening Fringe sessions provide a forum for presenting and discussing new ideas and/or work in progress.

The conference registration fee (covering admission to all sessions, one copy of the Proceedings, coffee/tea breaks, lunches and evening meals, including the conference dinner) will be announced on the *Registration* page shortly, which also gives details of a number of bursaries to support students attending the conference. Delegates are responsible for booking their own accommodation: a range of hotels will be listed on the *Location* page of the conference website.

Thank you for reading this Call. If you have any questions about the conference, please email us at [cpa2018@wotug.org](mailto:cpa2018@wotug.org) or contact one of us directly (see below for the organising committee). Finally, we would be grateful if you would forward this call to colleagues who might like to know about CPA 2018 and may not otherwise discover it. Many thanks and we look forward to seeing you in historic Dresden!

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