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2nd CALL FOR PAPERS - abstracts due: January 27, 2017


April 29, 2017 | Uppsala, Sweden | http://se.uni-konstanz.de/crest2017
A satellite event of ETAPS 2017

Topic

Today's IT systems, and the interactions between them, become increasingly complex. Power grid blackouts, airplane crashes, failures of medical devices and malfunctioning automotive systems are just a few examples of incidents that affect system safety. They are often due to component failures and unexpected interactions of subsystems under conditions that have not been anticipated during system design and testing. The failure of one component may entail a cascade of failures in other components; several components may also fail independently. In the security domain, localizing instructions and tracking agents responsible for information leakage and other system attacks is a central problem. Determining the root cause(s) of a system-level failure and elucidating the exact scenario that led to the failure is today a complex and tedious task that requires significant expertise. Formal approaches for automated causality analysis, fault localization, explanation of events, accountability and blaming have been proposed independently by several communities - in particular, AI, concurrency, model-based diagnosis, software engineering, security engineering and formal methods. Work on these topics has significantly gained speed during the last years. The goals of this workshop are to bring together and foster exchange between researchers from the different communities, and to present and discuss recent advances and new ideas in the field. Topics of interest include, but are not limited to:

- foundation of causal reasoning about systems in the philosophy of sciences
languages and logics for causal specification and causal analysis
definitions of causality and explanation
causality analysis on models, programs, and/or traces
fault localization
causal reasoning in security engineering
causality in accident analysis, safety cases and certification
fault ascription and blaming
accountability
applications, implementations, tools and case studies of the above

**Paper Selection**

All contributed papers will be reviewed by at least 3 PC members. Revised versions of selected papers will be published as formal post-workshop proceedings in the Electronic Proceedings in Theoretical Computer Science (EPTCS). At least one of the authors of an accepted paper needs to register for the workshop and present the paper in order for it to be included in the post-workshop proceedings.

**Submission**

Papers should be prepared in EPTCS style with a length of up to 15 pages. All contributions must be submitted via the EasyChair submission web site for CREST 2017: [https://easychair.org/conferences/?conf=crest2017](https://easychair.org/conferences/?conf=crest2017).

**Keynotes**

- Samantha Kleinberg, Stevens Institute of Technology, USA

**Important Dates**

- abstracts due: January 27, 2017
- papers due: February 3, 2017
- notification: March 10, 2017
- papers for informal participant’s proceedings due: March 24, 2017

**Program Committee**

- Georgiana Caltais, University of Konstanz, Germany
- Hana Chockler, King’s College London, UK
- Anupam Datta, Carnegie Mellon University, USA
- Gorschwin Fey, University of Bremen, Germany
- Gregor Goessler, Inria, France
- Alex Groce, Oregon State University, USA (co-chair)
- Sylvain Halle, Université du Quebec a Chicoutimi, Canada
- Joseph Halpern, Cornell University, USA
• Jeff Huang, Texas A&M University, USA
• Samantha Kleinberg, Stevens Institute of Technology, USA
• Peter Ladkin, University of Bielefeld, Germany
• Stefan Leue, University of Konstanz, Germany (co-chair)
• Peter Lucas, Radboud University Nijmegen, Netherlands
• Mohammad Reza Mousavi, Halmstad University, Sweden
• Andy Podgurski, Case Western Reserve University, USA
• Oleg Sokolsky, University of Pennsylvania, USA
• Joost Vennekens, K.U. Leuven, Belgium
• Willem Visser, Stellenbosch University, South Africa
• Georg Weissenbacher, Vienna University of Technology, Austria
• Thomas Wies, New York University, USA

**Organizers**

• Alex Groce, Oregon State University, USA
• Stefan Leue, University of Konstanz, Germany

The organizers can be reached via email address crest2017 "at" easychair.org.