



Call for Papers

The 11th International Conference on Self-adaptive and Self-organizing Systems

Aims & Scope

The aim of the Self-Adaptive and Self-Organizing Systems conference series (SASO) is to provide a forum for the presentation and discussion of research on the foundations of engineered systems that self-adapt and self-organize.

SASO is an interdisciplinary meeting, where contributions from participants with different backgrounds leads to the fostering of a cross-pollination of ideas, and where innovative theories, frameworks, methodologies, tools, and applications can emerge.

Now in its 11th year, SASO embraces this inter-disciplinary nature, and welcomes novel contributions to both the foundational and application-focused dimensions of self-adaptive and self-organizing systems research.



Topics

Topics of interest include, but are not limited to:

- ▶ **Systems theory:** nature-inspired & socially-inspired paradigms and heuristics; inter-operation of self-* mechanisms; theoretical frameworks; control theory;
- ▶ **System properties:** robustness; resilience; stability; anti-fragility; diversity; self-reference, reflection; emergence; computational (self-)awareness;
- ▶ **Systems engineering:** reusable mechanisms & algorithms; patterns; architectures; methodologies; middleware; platforms and toolkits; multi-agent systems;
- ▶ **Theory and practice of organization:** self-governance, change management, electronic institutions, distributed consensus, commons, knowledge management, and the general use of rules, policies, etc. in self-* systems
- ▶ **Theory and practice of adaptation:** mechanisms for adaptation, including evolution, logic, learning; adaptability, plasticity, flexibility
- ▶ **Socio-technical systems:** human & social factors; visualization; crowdsourcing / collective awareness; humans-in-the-loop; humanities in self-* systems;
- ▶ **Data-driven approaches:** data mining; machine learning; data science and other statistical techniques to analyze, understand, and manage system behavior;
- ▶ **Self-adaptive and self-organizing hardware:** self-* materials; self-construction; reconfigurable hardware;
- ▶ **Education:** experience reports; curricula; innovative course concepts; methodological aspects of self-* systems education;

Applications

Applications and experiences with self-* systems in any of the following domains are of particular interest:

- ▶ **Smart systems:** smart grids, cities, environments, homes, etc.
- ▶ **Industry:** embedded self-* systems, adaptive industrial plants, Industry 4.0
- ▶ **Transportation:** autonomous vehicles, traffic optimization
- ▶ **Autonomous systems:** aerial vehicles, undersea vehicles, autonomous robotics
- ▶ **Internet of Things:** self-* networks, self-* cyber security

Important Dates

- ▶ Abstract submission: May 1, 2017
- ▶ Paper submission: **May 10, 2017**
- ▶ Notification: June 30, 2017
- ▶ Camera ready due: July 12, 2017
- ▶ SASO: **September 18-22, 2017**

