ACM Symposium on Applied Computing 2016
The 31st Annual ACM Symposium on Applied Computing in Pisa, Italy, April 3 – 8, 2016.

(webpage : http://www.acm.org/conferences/sac/sac2016/)

Deep Learning and Continuous-Time Computing

(webpage : http://event.cwi.nl/sac2016/)

SAC 2016: For the past thirsty years, the ACM Symposium on Applied Computing has been a primary gathering forum for applied computer scientists, computer engineers, software engineers, and application developers from around the world. SAC 2016 is sponsored by the **ACM Special Interest Group on Applied Computing (SIGAPP)**, and will be hosted by the **University of Pisa** and **Scuola Superiore Sant'Anna University, Italy**.

Artificial Intelligence (AI) is one of the objectives of Machine Learning: how to create computers capable of intelligent behavior. **Deep Learning** in artificial neural networks represents a remarkable step toward this direction. Current state-of-the-art AI in the form of deep neural networks has recently demonstrated breakthrough performance in various AI-cognitive tasks, from image and speech recognition to natural language generation and playing ATARI games. However, in real-world applications like video processing or robot control, a deep neural network has then to be updated continuously, causing a high computational load. Specialized **acceleration hardware** is being developed for deep learning in continuous-time environments. In addition, or alternatively, **Spiking Neural Networks (SNNs)** represent another possible solution for efficient continuous-time representation and computing in deep neural networks. This Track aims to consolidate the current state-of-the-art in deep learning, continuous-time computing, spiking neural networks and related acceleration hardware tools (such as **GPUs**, **SpiNNaker** or **Neuromorphic Silicon systems)** showing recent and future progresses of this rising and growing research field.

Topics of interest

- ✓ Deep Learning
- ✓ Continuous-time learning
- ✓ Spiking Neural Networks
- ✓ Asynchronous computation
- ✓ Large scale parallel simulations and computing
- ✓ Neuromorphic computing

Important dates

~~September 11, 2015~~: September 21, 2015 Submission of papers and SRC research abstracts (extended)

September 25, 2015: Submission of Tutorial Proposals

November 13, 2015: Notification of Tutorials Acceptance

November 13, 2015: Notification of paper and SRC acceptance/rejection

December 11, 2015: Camera-ready copies of accepted papers/SRC

December 18, 2015: Author registration due date

Track chairs

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Important notice: *Paper registration is required, allowing the inclusion of the paper, poster, or SRC abstract in the conference proceedings. An author or a proxy attending SAC MUST present the paper. This is a requirement for including the work in the ACM/IEEE digital library. No-show of registered papers, posters, and SRC abstracts will result in excluding them from the ACM/IEEE digital library.*