

Call for Papers and Posters

Machine learning of graphical models in static and dynamic complex environments

Organized as part of the IEEE 13th international Conference on Machine Learning and Application (ICMLA-2014)

Detroit USA

December 3-6, 2014

For more information and paper submission visit:

<http://www.icmla-conference.org/icmla14/>

Machine learning of graphical models (MLGMs) are widely applied in many complex problem-domains such as medicine, bioinformatics, neuro-informatics, forensic science, social networks, finance, bibliometry, speech recognition, natural language processing, information retrieval, troubleshooting, planning and control, reliability, music, psychology, human-computer interaction, text mining, computer vision and robotics. This is because of the ability of MLGMs algorithms to discover and model previously unknown knowledge in complex situations that are either static or evolving (dynamic) over time. MLGMs are based on compact and powerful (a)cyclic graphs to efficiently capture dependencies and encode constraints in the problem domain. MLGMs in large, have proven successful models-driven whenever dynamic process changes occur due to changing system states, varying operation modes, or environmental conditions. Prosperous applications of MLGMs can be seen to model static/dynamic gene regulatory networks, control and planning policies, fault detection, and many more.

This workshop aims at gathering papers treating applications and developed theory of MLGMs in order to provide the researchers and participants with an excellent multidisciplinary forum for exchanging ideas and discussing challenges for various domain-applications of MLGMs in complex, evolving and big datasets. This workshop seeks original *practical* and *theoretical* research papers including but not limited to the following graphical models disciplines:

- Supervised and unsupervised Bayesian network learning algorithms.
- Dynamic Bayesian network learning algorithms,
- Markov network learning algorithms,
- Chain graph learning algorithms,
- Dependency network learning algorithms,
- Naïve Bayes learning algorithms,
- Relevance network learning algorithms,
- Boolean network learning algorithms,
- Hidden Markov network learning algorithms,
- ...

We encourage researchers to submit full research papers (6 pages) and short research papers (4 pages) reporting work in progress. All accepted papers from the two types of submissions will be included in the proceedings to be published by IEEE Press.

Authors should submit papers through the main conference submission website. Papers must correspond to the requirements detailed in the instructions to authors. All conference submissions will be handled electronically. Detailed instructions for submitting the papers are provided on the conference home page at:

<http://www.icmla-conference.org/icmla14/>

Accepted papers should be presented by one of the authors to be published in the conference proceedings. If you have any questions, do not hesitate to direct your questions to the workshop organizers.

Important Dates:

Paper Submission Deadline:	August 6 th , 2014
Notification of acceptance:	September 7 th , 2014
Camera-ready papers & Pre-registration:	October 1 st , 2014
The ICMLA Conference:	December 3 rd , 2014

Organizers:

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