Call for Papers

The 26th International Conference on Algorithmic Learning Theory (ALT 2015)

http://www.comp.nus.edu.sg/~fstephan/alt/alt2015/

The 26th International Conference on Algorithmic Learning Theory (ALT 2015) will be held in Banff, Canada, during October 4-6, 2015. The conference is on the theoretical foundations of machine learning. The conference will be co-located with the 18th International Conference on Discovery Science (DS 2015).

Topics of Interest. We invite submissions with theoretical and algorithmic contributions to new or already existing learning problems including but are not limited to:

- Comparison of the strength of learning models and the design and evaluation of novel algorithms for learning problems in established learning-theoretic settings such as
  - Statistical learning theory,
  - On-line learning,
  - Inductive inference,
  - Query models,
  - Unsupervised learning
  - Clustering
  - Semi-supervised and active learning
  - Stochastic optimization
  - High dimensional and non-parametric inference
  - Exploration-Exploitation tradeoff, bandit theory
  - Reinforcement learning, planning
  - Learning with additional constraints, e.g, communication, time or memory budget, or privacy.
- Analysis of the theoretical properties of existing algorithms. Families of algorithms could include
  - Boosting,
  - Kernel-based methods, SVM,
  - Bayesian networks,
  - Graph- and/or manifold-based methods,

- methods for latent-variable estimation and/or clustering,
- MDL,
- decision tree methods,
- information-based methods.

Analyses could include generalization, speed of convergence, computational complexity, and sample complexity.

- Definition and analysis of new learning models. Models might identify and formalize classes of learning problems inadequately addressed by existing theory or capture salient properties of important concrete applications.

We are also interested in papers that include viewpoints that are new to the ALT community. We welcome experimental and algorithmic papers provided they are relevant to the focus of the conference by elucidating theoretical results, or by pointing out interesting and not well understood behavior that could stimulate theoretical analysis.

Format. The submitted paper should be no longer than 15 pages in the standard format for Springer-Verlag's Lecture Notes in Artificial Intelligence series. The 15 page limit includes title, abstract, acknowledgements, references, illustrations and any other parts of the paper; appendixes bypassing the page limit are not allowed.

In a departure from previous years, this year the ALT reviewing process will be double blind. Authors should ensure that the submission does not include author names and affiliations. Acknowledgements should not be included in the submission version of the paper, and prior work by the authors should be referred to in the third person. Papers that do not satisfy these guidelines will not be reviewed.

Policy. Each submitted paper will be reviewed by the members of the program committee and be judged on clarity, significance and originality. Joint submissions to other conferences with published proceedings are not allowed. Papers that have appeared in or are under review for journals or other conferences are not appropriate for ALT 2015. Yet, it is acceptable to submit to ALT work that has been made available as a technical report (or similar, e.g. in arXiv) without citing it.

Proceedings. All accepted papers will be published as a volume in the Lecture Notes in Artificial Intelligence, Springer-Verlag, and will be available at the conference. Full versions of selected papers of ALT 2015 will be invited to a special issue of the journal Theoretical Computer Science (Elsevier).

E.M. Gold Award. One scholarship of Eur 555 will be awarded to a student author of an excellent paper (please mark student submissions on the title page).

Conference website. `http://www.comp.nus.edu.sg/~fstephan/alt/alt2015/`

Important Dates.

- Full Paper Submission: May 11, 2015
- Author Notification: June 26, 2015
- Camera-Ready Papers Due: July 14, 2015
- Conference: October 4-6, 2015

Submission. Authors can submit their papers electronically via our submission page through Easychair (`https://www.easychair.org/conferences/?conf=alt2015`), which will be opened for submissions in April 2015.

PC co-chairs:

- Kamalika Chaudhuri, University of California, San Diego
- Claudio Gentile, Università degli Studi dell'Insubria, Varese

Local chairs:

- Sandra Zilles, University of Regina
- Csaba Szepesvari, University of Alberta

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Queries: For queries please contact the PC co-chairs via the email `alt2015@easychair.org`