

Please accept our apologies in case of multiple receptions



15th Conference on Knowledge Extraction and Management

organized by the French-Speaking Association EGC - Contributions and presentations in English are welcome.

with Industry Track “Big Data Analytics”

Industry track will be held exclusively in English.

EGC 2015

January 27-30, 2015, Luxembourg

<http://egc2015.lippmann.lu>

Program chair:

Jérôme Darmont, ERIC – Université de Lyon, France

Local chairs:

Benoît Otjacques, Centre Gabriel Lippmann, Luxembourg

Thomas Tamisier, Centre Gabriel Lippmann, Luxembourg

Industry Track chair:

Patrik Hitzelberger, Centre Gabriel Lippmann, Luxembourg

Demonstration Session chair:

Mohammad Ghoniem, Centre Gabriel Lippmann, Luxembourg

This conference is devoted to theories, methods and applications of knowledge management and engineering, machine learning, data mining and knowledge discovery in databases. EGC aims at providing a forum for researchers, students and professionals for presenting research results. It brings together experts from both academia and industry for exchanging ideas and discussing future challenges in knowledge extraction and management.

As each year, the EGC conference is open to recent research work and industrial developments in the domain of knowledge extraction and management (cf. the list below). Thus, EGC helps present and discuss both theoretical and applied results.

Several kinds of communications are possible: research studies (published as long, 12-page papers, short, 6-page papers or posters with 2-page abstracts, depending on maturity), software demos (presented in 6-page papers). Papers may be submitted either in French or in English (for non-French speakers). EGC2015 will also host several thematic workshops : please go to the conference website for more information.

A best academic paper and a best applied paper awards will be granted, as well as a PhD award (separate call pending). Accepted research papers and demos will be published in a special issue of the French RNTI journal. Furthermore, selected accepted papers will be invited to submit an extended version for publication in international postproceedings published by Springer Verlag.

Industry track on Big Data Analytics

Big Data Analytics will be the topic of the Industry Track of EGC 2015, which will bring together participants from industry and academia. It will be wholly held in English.

Contributions to the Industry Track should emphasize real-world deployment experiences of applications and projects related to the EGC topics (see below), with a special focus on Big Data scenarios. Success stories from the deployment of analytical technologies in industry, and concrete lessons learned can be presented. Areas where further research is needed, opportunities for Big Data analytics in industry, success stories from the deployment of tools and applications – every aspect of the practical current and future use of knowledge extraction and management technologies in industry can and should be discussed.

We encourage submissions from industry, but also from academia when there is a clear practical relevance, and especially from academic/industrial collaboration projects. The review process for this track will mainly focus on practical relevance. Submissions can be short (6 pages max.) or long (12 page max.) papers in English only. They must follow the format and guidelines of the main conference, see below and on the conference website.

Demonstrations

A special session of software demonstrations and research prototypes will take place in the context of the EGC 2015 conference.

As for the research papers, these demonstrations must conform to the conference topics: knowledge extraction and management (fundamentals, methodologies, emerging domain, applications). Please refer to the list of topics below.

The papers (maximum of 6 pages) presenting these applications will be included in the conference proceedings.

Each accepted submission will be the subject of a quick presentation during the plenary session and of a detailed demonstration during an allocated timeslot with the conference participants.

Conference topics

Foundations of knowledge extraction and management

Tasks

- Supervised learning: kernel machines, vector machines, formal neural networks, probabilistic models, rule learning, ensemble methods, regression...
- Clustering: conceptual clustering, partitioning methods, neural methods, hierarchical methods, multiview, multistrategy, incremental, or collaborative clustering
- Model selection
- Pattern mining: itemsets, sequences, trees, graphs...
- Outlier and anomaly detection
- Recommendation systems
- Other paradigms: semi-supervised, active or multistrategy machine learning

Methods

- Statistical methods in data mining
- Symbolic learning, inductive logic programming
- Topological learning, mathematical varieties
- Visual data mining
- Data mining and constraints
- Incremental data mining
- Scalable data mining algorithms
- Distributed/parallel systems for data mining
- Symbolic data analysis

Data

- Structured, semi-structured, textual data...
- Semantically heterogeneous data / multimedia, spatial, images, video, audio... data / data populating knowledge models, relational data, network data, graph data
- Geolocated, temporal, spatial data
- Data annotated with ontologies, exploited within the semantic Web
- Voluminous, complex, dynamic data...
- Open data
- Social data

Methodologies for knowledge extraction and management

- Data acquisition, collection, preprocessing, filtering, data reduction, selection and feature modification
- Data quality and knowledge criteria and evaluation
- Data integration (ETL, data warehouses, mediation...)
- Knowledge integration in the extraction process
- Knowledge and ontology management (acquisition, storage, update, interoperability, interconnection, evolution)
- Analytical visualization, OLAP, person-machine interaction in data mining
- Information and data traceability, security and integrity
- Platforms and systems for KDD
- Comparative studies by benchmarking
- Evaluation protocols and model validation from user samples
- Experimental studies on voluminous data

Knowledge extraction and management in emerging domains

- Social: relationship analysis, on-line communities, social networks...
- Mobility, geolocation, ambient, ubiquitous
- Behavior modeling
- Electronic commerce, online advertisement
- Opinion, news, microblogging mining
- Open data
- Linked Data
- Crowdsourcing

Applications of knowledge extraction and management

- Enterprise memory, technological watch
- Intrusion detection, fraud prevention
- Epidemics modeling, clinical research, health monitoring
- Customer relationship, network and system management
- Sustainable development, intelligent transport
- Other applications in domains such as medicine, biology, chemistry, finance, insurance...

Submission

Submissions must be anonymous and occur exclusively online at the following address:

- For long, short papers and posters:
<https://www.easychair.org/conferences/?conf=egc2015>
- For demos:
<https://easychair.org/conferences/?conf=egc2015demos>

Papers must be submitted as PDF, and shall use the RNTI LaTeX format linked below:

<http://www.editions-rnti.fr/files/RNTI-X-Y2.1.zip>

Submissions exceeding 12 pages or ignoring the RNTI LaTeX format will not be considered.

Important dates

All dates are firm. There will be no extended deadline.

Research papers

- Abstracts: October 10, 2014
- Full papers: October 17, 2014
- Authors/PC members interaction: November 12-14, 2014
- Notification to authors: November 22, 2014
- Final versions: December 10, 2014

Software demos

- Submission deadline: October 17, 2014
- Notification to authors: November 22, 2014
- Final versions: December 10, 2014

Workshops

- Submission deadline: September 5, 2014
- Notification to workshop chairs: September 15, 2014
- Workshop program online: January 6, 2015