

Workshop Proposal

Fadila Bentayeb & Omar Boussaid

BBIGAP: 1st International Workshop on BI & BIG DATA APPLICATIONS

In conjunction with the 23rd European Conference on Advances in Databases and Information Systems - <http://www.adbis2018.org/> - Maribor, Slovenia, 8-11 September, 2019

PC Chairs

Fadila Bentayeb, Associate Professor, University of Lyon 2, fadila.bentayeb@univ-lyon2.fr

Omar Boussaid, Professor, University of Lyon 2, omar.boussaid@univ-lyon2.fr

PC Chairs short cv

Fadila Bentayeb has been an associate professor of computer science since 2001 at Université Lumière Lyon 2 and received her qualification for supervising research (HDR - Habilitation à Diriger des Recherches in french) in 2011. She is currently the head of the decision support systems research team (SID - Systèmes d'Information Décisionnels in french) at ERIC lab. Her main current research interests relate to relational and NoSQL data warehouses, OLAP analysis, business intelligence, especially performance and so-called personal intelligence. She has published more than 100 peer-reviewed papers. She is a member editorial board of French-speaking data warehousing and OLAP conference EDA, has served in numerous conference program committees, and has reviewed numerous journal papers. She has also been serving as an expert for several universities and organisms in France and abroad. Finally, Fadila Bentayeb maintains active international cooperation with the data warehousing community (joint publications, co-supervised Ph.D. theses...), has been an active member in national projects and the scientific leader of two regional projects for supporting the creation of start-up companies. She is also a head of the first year of Master degree of computer science at the University of Lyon 2.

Omar Boussaid is a full professor in computer science at the Institute of Communication of the University of Lyon 2, France. He received his PhD degree in computer science from the University of Lyon 1, France in 1988. He received the accreditation to supervise research in 2006 at the University Lumière Lyon 2. Since 1995, he is the head of the Master Business Intelligence & Big data of the University of Lyon 2.

His main research work is on Business Intelligence (BI) field, and specifically complex data warehousing and mining. His current research focuses on the evolution of the BI in the Big Data. Big data management through metadata management in data lakes, multidimensional modeling of textual data, designing distributed data warehouses using NoSQL databases and MapReduce paradigm for parallel processing, analysis of social graphs cubes, community detection and evaluation, semantic analysis... These are some examples, on which his scientific animation work and scientific supervision are based. His work has been published in more than 150 peer-reviewed papers in international journals and conference proceedings. He was in charge of the SID (Decisional Information System) team for a few years. He is a member of several program committees of international journals and conferences. He evaluated several research projects. He is a founding member of the EDA conference of which he is a member of the steering committee. He is also a co-founder of a Maghreb conference on Decision-Making Information Systems, and he is also a member of its steering committee. For many years, he has been involved in active international cooperation.

Organizing conferences and workshops Experience

- EDA: French conference on Data warehouses and OLAP
 - o 2018 in Tanger (Morocco): Fadila Bentayeb, Omar Boussaid (Co-Chairs of the scientific committee)
 - o 2017 in Lyon: Fadila Bnetayeb (PC Chair)
 - o 2005 in Lyon: Fadila Bentayeb, Omar Boussaid (Co-Chairs)
- INFORSID: French Conference on Information Systems
 - o 2018 in Nantes,: Fadila Bentayeb, Omar Boussaid (Co-Chairs of Workshop on Data Intelligence)
 - o Lyon, 2014: Omar Boussaid (Chair) & Fadila Bentayeb (PC Member & Organizing committee member)
- DEXA 2017 in Lyon
 - o Lyon 2017: Fadila Bentayeb & Omar Boussaid: Members of Organizing Committee
- ASD: Maghreb Conference in Advanced Decision Support Systems
 - o 2018 in Marakech (Morocco) Omar Boussaid (Co-Chairs of the scientific committee)
 - o 2016 in Annaba (Algeria) : Fadila Bentayeb (Co-Chair of the Organizing Committee), Omar Boussaid (Co-Chair of the Scientific Committee)
- WMCD: International workshop on Warehousing and Mining Complex Data, in conjunction with EDBT/ICDT
 - o Uppsala, Sweden 2011: Fadila Bentayeb (Workshop co-chair)
- NOTERE: International Conference on New Technologies of Distributed Systems
 - o Lyon 2008: Fadila Bentayeb (Member of Organizing Committee)
- FQAS: International Conference On Flexible Query Answering Systems, Lyon
 - o Lyon 2008: Fadila Bentayeb (Member of Organizing Committee)
- PKDD 2000: Principles and Practice of Knowledge Discovery in Databases, Lyon, France
 - o Fadila Bentayeb & Omar Boussaid (Active members of Organizing Committee)

Estimated length: 1 day

BBIGAP Overview

Big Data becomes a huge opportunity for computer science research but it also revolutionizes many fields, including business, social science, medicine, public administration and so on. For example particular recent trend for researchers from social sciences is to understand the potential of big data in complementing traditional research methods and their value in making decisions. In this case, big data requires a revisit of data management and data analysis techniques in fundamental ways at all stages from data acquisition and storage to data transformation and interpretation. In particular, the task of collecting and analyzing data — which is at the heart of the big data analytics pipeline — underwent pressing (and somewhat daunting) challenges in the domain of Social Sciences. The types of available data fall into various categories: social data (e.g., Twitter feeds, Facebook likes), data about mobility and geospatial locations (e.g., sensor data collected through mobile phones or satellite images), data collected from government administrative sources and multilingual text datasets, only to name a few. Big data bring us into a new scientific and

technological era offering architectures and infrastructure (clouds, Hadoop-like computing, NoSQL databases) that allow better data management and analytics for decision-making.

BBIGAP main goal

BBIGAP workshop aims to provide a forum to discuss recent advancements, exchange ideas and share experiences on new issues and challenges in BI and big data applications in several domains mainly in humanities and social sciences but also in medicine, agriculture... Papers presenting recent results, research issues, practical applications and case studies as well as industrial implementations are welcome. Moreover, the submission of ongoing research, position, visionary and student papers are encouraged to fuel up the discussion.

Accepted (and presented) papers will be published in Springer's Communications in Computer and Information Science series.

Topics of interest

Several major issues have to be closely investigated around BI & big data applications in various fields.

Topics include, but are not limited to (* refers to social, medicine, agriculture and so on):

- Data warehousing, OLAP and ETL tools for *data
- BI applications: administration, science, health, society, bioinformatics...
- BI for social networks
- BI analytics
- Big data Applications: administration, science, health, society, bioinformatics...
- Big data analytics for social and humanities, medicine...
- BI & Big Data for Text, graph, stream... data
- Novel decision information systems applications
- Digital humanities
- NoSQL data storage
- Data lakes, Metadata management
- Data Heterogeneity issues in Social data
- Novel data collection techniques for reliable Social data
- Open data exploitation
- Alert systems

Workshop Dissemination

- Workshop Website
- Mailing lists
- Targeted emails

Submission Instructions

Submitted papers should present substantially original results not currently under review or published elsewhere. Papers should be written in English and must comply with the Springer formatting guidelines instructions for authors are available at:

<https://www.springer.com/gp/authors-editors/conference-proceedings/conference-proceedings-guidelines>.

Papers should be formatted in Latex and are limited to 12 pages and submitted in PDF format using the online easychair submission system.

Program Committee Members (to be completed)

Rym Moussa, University of Tunis, Tunisia
Laurent d'Orazio, University of Rennes, France
Tassadit Bouadi, University of Rennes, France
Ladjel Bellatreche, INSEMA, Poitiers, France
Amine Abdessamed, University of Lorraine, France
Gilles Zurfluh, university of Toulouse, France
Rokia Missaoui, University of Quebec in Gatineau, Canada
Sandro Bimonte, IRESTEA, France
Daniel Lemire, University of Quebec in Montreal, Canada
Esteban Zymani, University of Brussels, Belgium
Thierry Badard, Laval university of Quebec, Canada
Abdelmounaam Rezgui, New Mexico Tech, USA