PREFACE

Message from the DOLAP 2018 Chairs

The International Workshop On Design, Optimization, Languages and Analytical Processing of Big Data (until 2015 known as the International Workshop on Data Warehousing and OLAP) - DOLAP celebrates this year its 20th anniversary. Previous DOLAP workshops were held in Bethesda, Maryland, USA (1998), Kansas City, Missouri, USA (1999), Washington, DC, USA (2000), Atlanta, Georgia, USA (2001), McLean, Virginia, USA (2002), New Orleans, LA, USA (2003), Washington, DC, USA (2004), Bremen, Germany (2005), Arlington, Virginia, USA (2006), Lisbon, Portugal (2007), Napa Valley, California, USA (2008), Hong Kong, China (2009), Toronto, Ontario, Canada (2010), Glasgow, United Kingdom (2011), Maui, HI, USA (2012), San Francisco, CA, USA (2013), Shanghai, China (2014), Melbourne, VIC, Australia (2015), and Venice, Italy (2017). All editions of DOLAP, including the 2015 one, were associated with the CIKM conference, and the proceedings were published by ACM. Since 2017, DOLAP is associated with the EDBT/ICDT conference, having its proceedings open-access, made available on-line by CEUR-WS (http://ceur-ws.org).

20 years of history, makes DOLAP one of the most recognized and appreciated events worldwide focusing strictly on Data Warehouses and Data Analytics.

Data Warehouse (DW) and Data Analytics (DA) technologies were, are, and will be the core components of Decision Support Systems, regardless whether applied to classical table-like data or Big Data. Research in DW and DA has produced important technologies for the design, integration, storage, management, performance optimization, and data analysis. On the one hand, standard relational-like DW and DA technologies are indispensable for managing and analyzing corporate internal data. New research is and will be conducted in this area, but the trend is to move towards more dynamic self-learning systems that will provide semi-automatic management, tuning, analysis, and even decision making.

On the other hand, the so-called Big Data pose new problems that are more difficult to solve. New challenges in managing Big Data stem not only from large volumes of data but mainly from their heterogeneity, complexity, dynamics, and questionable quality. In the Gartner report “Top 10 Strategic Technology Trends for 2018” some envisaged trends related to DW and DA include: advanced artificial intelligence techniques for decision making and for building ‘intelligent’ software and hardware, even quicker wide-spread of IoT, and distributed computing architectures (e.g., small clouds) located close to data producers.

We observe that papers that DOLAP was receiving within 20 years, addressed hot research and technological challenges following world-wide trends in DW and DA.

For DOLAP 2018 we received 24 submissions. This year, for the first time, we applied 2-phase reviewing process, for the purpose of improving the quality of papers, both in terms of research contributions and clarity of presentations. As the result of this process, 11 papers were accepted for the workshop - 6 regular and 5 short. These papers cover a broad spectrum of topics, including: security, NoSQL storage technologies, ETL, modeling for Big Data, and novel approaches to data analysis.

The DOLAP 2018 Chairs would like to thank the Program Committee Members for their thorough and timely work. This year, 100% of reviews were delivered on time!

February 2018

EDBT/ICDT 2018 Workshop Chair
Nikolaus Augsten
DOLAP 2018 General Chair
Il-Yeol Song
DOLAP 2018 Program Chairs
Alberto Abelló
Robert Wrembel

DOLAP STEERING COMMITTEE

- Alberto Abelló, Universitat Politècnica de Catalunya - BarcelonaTech, Spain
- Ladjel Bellatreche, LIAS/ISAE-ENSMA, France
- Alfredo Cuzzocrea, University of Trieste, Italy
- Carlos Garcia-Alvarado, Amazon, USA
- Matteo Golfarelli, DISI - University of Bologna, Italy
- Patrick Marcel, University of Tours, France
- Carlos Ordonez, University of Houston, USA
- Torben Bach Pedersen, Aalborg University, Denmark
- Stefano Rizzi, DISI - University of Bologna, Italy
- Alkis Simitsis, HP, USA
- Il-Yeol Song, Drexel University, USA
- Dimitri Theodoratos, New Jersey Institute of Technology, USA
- Juan Trujillo, University of Alicante, Spain
- Panos Vassiliadis, University of Ioannina, Greece
Esteban Zimányi, Université Libre de Bruxelles, Belgium

DOLAP PROGRAM COMMITTEE

- Alberto Abelló, Universitat Politècnica de Catalunya - BarcelonaTech, Spain
- Julien Aligon, University of Toulouse, France
- Ladjiel Bellatreche, LIAS/ISAE-ENSMA, France
- Fadila Bentayeb, University of Lyon, France
- Tania Cerquitelli, Politecnico di Torino, Italy
- Alfredo Cuzzocrea, University of Trieste Italy
- Jérôme Darmont, University of Lyon, France
- Karen Davis, Miami University in Oxford, USA
- Magdalini Eirinaki, University of San Jose, USA
- Neamat El Tazi, Cairo University, Egypt
- Pedro Furtado, Coimbra University, Portugal
- Johann Gamper, Free University of Bozen-Bolzano, Italy
- Carlos García-Alvarado, Pivotal Software Inc., USA
- Matteo Golfarelli, DISI University of Bologna, Italy
- Marcin Gorawski, Silesian University of Technology, Poland
- Le Gruenwald, University of Oklahoma, USA
- Petar Jovanovic, Universitat Politècnica de Catalunya, Spain
- Nicolas Labroche, University of Tours, France
- Wolfgang Lehner, Technische Universität Dresden, Germany
- Daniel Lemire, University of Quebec, Canada
- Hui Ma, Victoria University of Wellington, New Zealand
- Patrick Marcel, University of Tours, France
- Adriana Marotta, University of Montevideo, Uruguay
- Rokia Missaoui, Université du Quebec en Outaouais, Canada
- Bernd Neumayr, JKU University Linz, Austria
- Kjetil Noervaag, Norwegian University of Science and Technology (NTNU), Norway
- Carlos Ordonez, University of Houston, USA
- Veronika Peralta, University of Tours, France
- Stefano Rizzi, DISI University of Bologna, Italy
- Oscar Romero, Universitat Politècnica de Catalunya, Spain
- Alkis Simitsis, HP Labs, USA
- Il-Yeol Song, Drexel University, USA
- Olivier Teste, University of Toulouse, France
- Dimitri Theodoratos, New Jersey Institute of Technology, USA
- Maik Thiele, Technische Universität Dresden, Germany
- Christian Thomsen, Aalborg University, Denmark
- Goce Trajevski, Iowa State University, USA
- Juan Trujillo, University of Alicante, Spain
- Alejandro Vaisman, Instituto Tecnológico de Buenos Aires, Argentina
- Panos Vassiliadis, University of Ioannina, Greece
- Qing Wang, Australian National University, Australia
- Robert Wrembel, Poznan University of Technology, Poland
- Esteban Zimányi, Université Libre de Bruxelles, Belgium

EXTERNAL REVIEWERS

- Alejandro Maté
- Francesco Ventura
- Amin Mesmoudi
- Jorge Armando Galicia-Auyon
- Evelina Di Corso
- William Raynaut