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Conceptual Modeling - ER 2009

28th International Conference on Conceptual Modeling
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Proceedings

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Foreword

Conceptual modeling has long been recognized as the primary means to enable software development in information systems and data engineering. Conceptual modeling provides languages, methods and tools to understand and represent the application domain; to elicit, conceptualize and formalize system requirements and user needs; to communicate systems designs to all stakeholders; and to formally verify and validate systems design on high levels of abstraction. Recently, ontologies added an important tool to conceptualize and formalize system specification.

The International Conference on Conceptual Modeling – ER – provides the premiere forum for presenting and discussing current research and applications in which the major emphasis is centered on conceptual modeling. Topics of interest span the entire spectrum of conceptual modeling, including research and practice in areas such as theories of concepts and ontologies underlying conceptual modeling, methods and tools for developing and communicating conceptual models, and techniques for transforming conceptual models into effective implementations.

The scientific program of ER 2009 features several activities running in parallel. The core activity is the presentation of the 31 papers published in this volume. Such papers were selected out of 162 submissions (an acceptance rate of 19%) by a large Program Committee co-chaired by Alberto Laender, Silvana Castano, and Umeshwar Dayal. We thank the PC co-chairs, the PC members, and the additional reviewers for their hard work, often within a short time. Thanks are also due to Antonio L. Furtado from the Pontifical Catholic University of Rio de Janeiro (Brazil), John Mylopoulos from the University of Trento (Italy), Laura Haas from IBM Almaden Research Center (USA), and Divesh Srivastava from AT&T Labs Research (USA), for accepting our invitation to present keynotes. Thirteen sessions of the conference are dedicated to the seven ER workshops selected by the Workshops Co-chairs, Carlos Heuser and Günther Pernul. We express our sincere appreciation to the co-chairs and to the organizers of those workshops for their work. The proceedings of these workshops have been published in a separate volume, and both volumes were edited with the help of Daniela Musa, the Proceedings Chair. Three sessions are dedicated to the PhD Workshop, organized by Stefano Spaccapietra and Giancarlo Guizzardi, whose efforts are highly appreciated. Fabio Casati organized the industrial presentations, and Renata Matos Galante took on the hard task of being the Financial Chair, to both our reconnaissance. Thanks also to the Tutorial Co-chairs, Daniel Schwabe and Stephen W. Liddle, and to the Panel Chair, David W. Embley, for their work in selecting and organizing the tutorials and the panel, respectively. Special thanks to Arne Sølvberg, the ER Steering Committee Liaison officer, for the advice and help he gave to us whenever we needed it. We also thank Mirella M. Moro for taking good care of the ER publicity, and for advertising the conference and its workshops in different venues. Finally, the Demonstrations and Posters Track was conducted by Altigran S. da Silva and Juan-Carlos Trujillo Mondéjar. To everyone involved in the ER 2009 technical organization, many congratulations on their great, thriving work.

Likewise, we acknowledge the engagement and enthusiasm of the local organization team, chaired by José Valdeni de Lima. The members of the team were Ana Paula Terra Bacelo, Carina Friedrich Dorneles, Leonardo Crauss Daronco, Lourdes Tassinari, Luís Otávio Soares, Mariano Nicolao, and Viviane Moreira Orengo.

August 2009

José Palazzo Moreira de Oliveira

Program Chairs' Message

Welcome to the 28th International Conference on Conceptual Modeling – ER 2009! We are very pleased to present you with an exciting technical program in celebration of the 30th anniversary of the ER conference. Since its first edition held in Los Angeles in 1979, the ER conference has become the ultimate forum for presentation and discussion of current research and applications related to all aspects of conceptual modeling. This year we received 162 submissions and accepted 31 papers for publication and presentation (an acceptance rate of 19%). The authors of these submissions span more than 30 countries from all continents, a clear sign of the ER prestige among researchers all around the world.

The assembled program includes nine technical sessions covering all aspects of conceptual modeling and related topics, such as requirements engineering, schema matching and integration, ontologies, process and service modeling, spatial and temporal modeling, and query approaches. The program also includes three keynotes by prominent researchers, Antonio L. Furtado, from the Pontifical Catholic University of Rio de Janeiro, Brazil, John Mylopoulos, from the University of Trento, Italy, and Laura Haas, from IBM Almaden Research Center, USA, which address fundamental aspects of conceptual and logical modeling as well as of information integration. This year's program also emphasizes the industrial and application view of conceptual modeling by including an industrial session, with two regular accepted papers and an invited one, and an industrial keynote by Divesh Srivastava, from AT&T Labs Research, USA.

This proceedings volume also includes a paper by Peter P. Chen in celebration of the 30th anniversary of the ER conference. In his paper, Prof. Chen reviews the major milestones and achievements of the conference in the past 30 years, and suggests several directions for the organizers of its future editions. We believe that all those interested in any aspect of conceptual modeling will enjoy reading this paper and knowing a bit more about the conference history.

Many people helped to put together the technical program. First of all, we would like to thank José Palazzo M. de Oliveira, ER 2009 General Conference Chair, for inviting us to co-chair the program committee and for his constant support and encouragement. Our special thanks go to the members of the program committee, who worked many long hours reviewing and, later, discussing the submissions. The high standard of their reviews not only provided authors with outstanding feedback but also substantially contributed to the quality of this technical program. It was a great pleasure to work with such a prominent and dedicated group of researchers. We would also like to thank the many external reviewers who helped with their assessments and Daniela Musa, the Proceedings Chair, for helping us organize this volume of the conference proceedings. All aspects of the paper submission and reviewing processes were handled using the EasyChair Conference Management System. We thus thank the EasyChair developing team for making this outstanding system freely available to the scientific community.

Finally, we would like to thank the authors of all submitted papers, whether accepted or not, for their outstanding contributions. We count on their continual support for keeping the high quality of the ER conference.

August 2009

Alberto H. F. Laender
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