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# String Processing and Information Retrieval

19th International Symposium, SPIRE 2012 Cartagena de Indias, Colombia, October 21-25, 2012 Proceedings



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## **Preface**

This volume contains the papers presented at the 19th International Symposium on String Processing and Information Retrieval (SPIRE), held in Cartagena de Indias, Colombia, during October 21–25, 2012. SPIRE 2012 was organized in tandem with the 8th Latin American Web Congress (LA-WEB), with both conferences sharing a common day in Web Retrieval.

In the 19 years since its first edition back in 1993, SPIRE has become the reference meeting for the interdisciplinary community of researchers whose activity lies at the crossroads of string processing and information retrieval. The first four editions of this event concentrated mainly on string processing, and were held in South America under the title "South American Workshop on String Processing" (WSP) in 1993 (Belo Horizonte, Brazil), 1995 (Valparaiso, Chile), 1996 (Recife, Brazil), and 1997 (Valparaiso, Chile). WSP was renamed as SPIRE in 1998 (Santa Cruz, Bolivia) when the scope of the event was broadened to include also information retrieval. The change was motivated by the increasing relevance of information retrieval and its close interrelationship with the general area of string processing. From 1999 to 2007, the venue of SPIRE alternated between South / Latin America (odd years) and Europe (even years), with Cancun, Mexico, in 1999, A Coruña, Spain, in 2000, Laguna de San Rafael, Chile, in 2001, Lisbon, Portugal, in 2002, Manaus, Brazil, in 2003, Padova, Italy, in 2004, Buenos Aires, Argentina, in 2005, Glasgow, UK, in 2006, and Santiago, Chile, in 2007. This pattern was broken when SPIRE 2008 was held in Melbourne, Australia, but it was restarted in 2009 when the venue was Saariselk, Finland, Los Cabos, Mexico, in 2010, followed by Pisa, Italy, in 2011.

The SPIRE 2012 call for papers resulted in the submission of 81 papers. Each submitted paper was reviewed by at least three of the 40 members of the Program Committee (PC), which eventually engaged in discussions coordinated by the two PC Chairmen in case of lack of consensus. We believe this resulted in a very accurate selection of the truly best submitted papers. As a result, 26 long papers and 13 short papers were accepted, and are published in these proceedings.

The program of SPIRE 2012 started on October 21 with three tutorials providing in-depth coverage of topics in string processing ("Space-Efficient Data Structures," by Francisco Claude and Gonzalo Navarro) and information retrieval ("Evaluation Metrics for Information Access," by Enrique Amig and Julio Gonzalo and "Information Dissemination in Social Networks," by Aristides Gionis). On October 22, SPIRE 2012 hosted two workshops, i.e., the 7th Workshop on Compression, Text, and Algorithms (WCTA) and the Workshop on Algorithmic Analysis of Biological Data (WAABD). On the following three days the main conference featured keynote speeches by Amihood Amir, Ricardo Baeza-Yates, and Ian H. Witten, plus the presentations of the 26 full papers and

13 short papers. A Best Paper Award and a Best Student Paper Award were also assigned.

We would like to take the opportunity to thank Google, Yahoo! Research, and Universidad Autónoma de Bucaramanga. We would also like to thank everybody involved in making SPIRE 2012 such an exciting event. Specifically, we would like to thank all conference, tutorial, and workshop participants and presenters, who provided a fascinating one-week program of high-quality presentations and intensive discussions. Thanks also to all the members of the PC and to the additional reviewers, who went to great lengths to ensure the high quality of this conference. We are specially grateful to EasyChair for saving us a lot of work and for providing timely support.

Furthermore, we would like to thank all the members of the local organizing team at the Universidad Autónoma de Bucaramanga (UNAB). Particularly, we would like to thank Fabrizio Silvestri, who acted as Tutorials Chair, Gonzalo Navarro, who acted as Workshops Chair, Luz Emilia Jimenez, who gave us support in local arrangements, the IT team from UNAB who designed the official image and website of the symposium, and to all the student volunteers. They all made tremendous efforts to make sure that this event became an exciting and enjoyable one. It is due to them that the organization of SPIRE 2012 was a pleasure.

October 2012

Liliana Calderón-Benavides Edgar Chávez Cristina González-Caro Nivio Ziviani

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