

Preface

Since its inception in Elba (Italy) in 1993 (COSIT was born out of COSIT 0 in Pisa, Italy in 1992), the COSIT biennial conference series (www.cosit.org) has brought together leading researchers from all cognate disciplines reflecting the interdisciplinary breadth of spatial information theory, including (but not limited to) geography, psychology, cognitive science, computer science, information science, and linguistics.

Following the conference on the North Sea coast in Scarborough (UK) in 2013, the 12th COSIT conference returned to the USA for the fifth time. The COSIT 2015 conference was held in Santa Fe, New Mexico, during October 12–16, 2015 in the oldest capital city of the USA, located near the foothills of the Sangre de Cristo Mountains.

We received 52 full papers, which were each thoroughly reviewed by at least three Program Committee members; 22 were selected for presentation at the conference and are included in this volume.

The breadth of the topics in this volume also reflects the breadth of the disciplines involved in fundamental research related to geographic information theory. Excitingly, traditional research topics, such as space-time representations, spatial relations, navigation, (strong) spatial cognition, etc., are still alive and well. Empirical research on how to extract and analyze spatial information from rapidly growing user-generated online multimedia databases, for example, produced in a citizen science context, has clearly emerged as a new and popular research frontier in the field. Meanwhile, “big picture” theories and human behavioral studies have recently yielded fewer contributions (although still represented herein), despite being of great value to this interdisciplinary field.

In addition to the single-track paper session, COSIT 2015 also offered four peer-reviewed workshops and one tutorial before the conference, and a doctoral colloquium after the main conference as in previous years. These events were intended as complementary opportunities to additionally facilitate dialogue across disciplinary boundaries and research expertise. Two keynote speakers, a poster session, as well as social events rounded off the stimulating COSIT 2015 conference activities in the beautiful city of Santa Fe in the U.S. South West, renowned for the natural beauty of its landscape.

Organizing a successful conference is not possible without the commitment, additional effort, and diligent help of many people. We would like to thank the international Program Committee for their timely and thorough reviews and the sponsors and supporters for providing travel support for students and keynote speakers, for supplying materials at the conference, and for supporting social events. Furthermore, the organizers of the workshops, tutorials, and doctoral colloquium contributed an important part of the overall program. We would also like to thank the conference organizing crew for all the hard work in front of and behind the scenes. Our special thanks go to Tumasch Reichenbacher in the Department of Geography at the University of Zurich who efficiently handled proceedings production matters, and Danqing Xiao in the

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