Preface

The ISPRS Technical Commission I Symposium 2014, jointly organized by the ASPRS Pecora Fall meeting in Denver, CO, November 17-20, 2014, attracted contributions from all the six continents, representing more than twenty countries. From the about 100 submissions, 62 were accepted for oral presentation, and from the 20 full-paper submissions ten passed the double-blind peer-review. These articles provide a good review on recent developments in the state-of-the-art sensing techniques and methods of photogrammetry, remote sensing and engineering geomatics, as well as their applications to Earth Sciences.

Technological developments in sensing and platforms have shown an accelerating pace in recent years, resulting in dramatic changes in geospatial data acquisition. Rapidly advancing sensor systems, such as airborne and satellite imaging, hyperspectral sensing, GNSS, LiDAR, and IfSAR, can simultaneously acquire both redundant and complementary data, allowing for robust data integration and fusion. In addition, sensors are increasingly used in networks, as the complexity of the topographic and thematic processes requires high resolution observations in both spatial and temporal domain. The rapid developments in sensing, not surprisingly, greatly impact all the downstream data and information extraction processes, resulting in intensifying algorithmic research and statistical analysis to primarily support decision making at both local and global scale.

The manuscripts in both the ISPRS Annals and Archives cover a broad range of topics related to remote sensing platforms and sensing technologies. On the platform side, UAS and small satellite constellations have shown remarkable developments, generating unprecedented interest, and prompting sensor providers to accommodate these remote sensing platforms. In particular, advancements in LiDAR technologies are noteworthy, as miniaturized laser sensors are in high demand. Research to exploit the new sensors and sensing capabilities offered by cooperating sensor platforms is rapidly increasing.

It is my pleasure to present this fine collection of articles to the ISPRS community and certainly hope that it will stimulate further research. I am grateful to all of the authors who contributed to this publication and I would like to thank the Scientific Committee members and other reviewers who provided essential service to the publication process.

Charles Toth, Editor

Boris Jutzi, Co-Editor