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Jonathan Li
Guoxiang Liu
Xiaojun Yang
Editors

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Introduction

This volume contains selected papers presented at the 2nd International Conference on Earth Observation for Global Changes (EOGC2009) held on 25–29 May 2009 in Chengdu, China. The First International Symposium on Earth Observation of Global Changes was held in Madrid, Spain in 2006. In the future, the EOGC events will be held biennially and rotate between Asia, Europe, North America, and other continents. It has been planned that EOGC2011 and EOGC 2013 will be held in Munich, Germany and Toronto, Canada, respectively.

The central theme of the EOGC2009 conference is Earth Observation for Global Changes. The main topics included international Earth observation efforts on global change studies, remote sensing of land use and land cover changes, coastal and marine ecosystems, snow, ice and the polar environment, eco-environmental change monitoring in the Tibetan Plateau, applications of remote sensing in the Wenchuan Earthquake, global geodetic observing system for global change studies, GNSS for emergency and disaster management, geospatial data processing and integration, and education and training in Earth observation technology and applications.

The conference provided a forum for original research contributions and practical experiences of the development and use of various Earth observation technologies, data interpretation techniques, and application methods. Validation of the societal impact of operational Earth observation products, as well as the benefits from the enhanced products to be produced by the Global Earth Observing System of System (GEOSS) and Committee of Earth Observing System (CEOS), currently under development, was also discussed. Over 700 abstracts and 456 full papers were received. Approximately 400 participants came from 22 countries and regions, including Austria, Australia, Canada, China, Egypt, Finland, Germany, Hong Kong, India, Iran, Italy, Myanmar, Portugal, Saudi Arabia, South Africa, Spain, Sweden, Taiwan, Thailand, The Netherlands, UNEP, and USA.

A total of 80 papers are finally included in this volume after a peer-review process. We would like to thank many people who contributed to this volume. The authors gave their valuable time to produce a state-of-the-art analysis and evaluation of the Earth observation technologies in global change studies. We are particularly grateful to all the reviewers who helped in evaluating the manuscripts in a short period of time (less than one month), including Costas Armenakis (York University, Canada), Yifang Ban (Royal Institute of Technology,

Sweden), Piero Boccardo (Politecnico di Torino, Italy), Alexander Brenning (University of Waterloo, Canada), Dongmei Chen (Queen's University, Canada), Georgia Fotopoulos (University of Toronto, Canada), Jay Gao (University of Auckland, New Zealand), Jianhua Gong (Institute of Remote Sensing Applications, CAS, China), Richard Kelly (University of Waterloo, Canada), Norman Kerle (ITC, The Netherlands), Zhaoqiang Huang (China Metallurgic Geology Bureau, China), Gangyao Kuang (University of Waterloo, Canada/National University of Defense Technology, China), Peijun Li (Peking University, China), Ting Liu (Florida State University, USA), Guoxiang Liu (Southwest Jiaotong University, China), Micha Pazner (University of Western Ontario, Canada), Dar Roberts (University of California, Santa Barbara, USA), Julian Smit (University of Cape Town, South Africa), Jiakui Tang (Yantai Institute of Coastal Research for Sustainable Development, CAS, China), Antonio M. G. Tommaselli (Sao Paulo State University, Brazil), Freek D. van der Meer (ITC, The Netherlands), Qihao Weng (Indiana State University, USA), Huayi Wu (Wuhan University, China), Min Sun (Peking University, China), Zhu Xu (Southwest Jiaotong University, China), Xianfeng Zhang (Peking University, China), Yun Zhang (University of New Brunswick, Canada), Ping Zhong (The Hong Kong Polytechnic University, Hong Kong, China), and Libin Zhou (Florida State University, USA). The graduate students at Peking University (China), University of Waterloo (Canada), Southwest Jiaotong University (China), and Florida State University (USA) are appreciated in handling the communications with authors during the peer review and revision process as well as some editing work. Our special thanks go to SPIE staff for their efforts in handling the publication issues. Last but not least, we wish to acknowledge the supporting organizations and institutions such as International Society of Photogrammetry and Remote Sensing (ISPRS), International Cartographic Association (ICA), International Association of Geodesy (IAG), International Society for Digital Earth (ISDE) and International Society for Optical Engineering (SPIE).

Xianfeng Zhang
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2 July 2009