Preface

These Proceedings include the written version of papers presented at the IAG International Symposium on “Gravity, Geoid and Earth Observation 2008”. The Symposium was held in Chania, Crete, Greece, 23–27 June 2008 and organized by the Laboratory of Geodesy and Geomatics Engineering, Technical University of Crete, Greece. The meeting was arranged by the International Association of Geodesy and in particular by the IAG Commission 2: Gravity Field. It took place at the beautiful premises of the Venetian Arsenali, Centre of Mediterranean Architecture, right in the middle of the Venetian old harbor of the Chania city.

The symposium aimed at bringing together geodesists and geophysicists working in the general areas of gravity, geoid, geodynamics and Earth observation. Besides covering the traditional research areas, special attention was paid to the use of geodetic methods for: Earth observation, environmental monitoring, Global Geodetic Observing System (GGOS), Earth Gravity Models (e.g., EGM08), geodynamics studies, dedicated gravity satellite missions (i.e., GOCE), airborne gravity surveys, Geodesy and geodynamics in polar regions, and the integration of geodetic and geophysical information.

The meeting attracted more than 220 participants from Australia, Algeria, Argentina, Austria, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iran, Italy, Japan, Luxemburg, the Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, the United Stated of America and the United Kingdom.

The scientific program of the meeting was organized by the symposium conveners and the chairpersons of each Session. At the GGEO2008 Symposium, 91 oral presentations and more than 200 poster presentations were presented. The Symposium was organized into nine Sessions as follows:

- **Session 1: Gravimetry (terrestrial, shipborne, airborne) and gravity networks.**
  - Chairs: Yoichi Fukuda (Japan), Leonid F. Vitushkin (France).
- **Session 2: Space-borne gravimetry: Present and Future.**
  - Chairs: Roland Pail (Austria) and Pieter Visser (The Netherlands).
- **Session 3: Earth Observation by Satellite Altimetry and InSAR.**
  - Chairs: Wolfgang Bosch (Germany), Masato Furuya (Japan), Roger Haagmans (ESA).
- **Session 4: Geoid modeling and vertical datums.**
  - Chairs: Ambrus Kenyeres (Hungary) and William Kearsley (Australia).
• **Session 5: Regional gravity field modeling.**
  • Chairs: Urs Marti (Switzerland) and Steve Kenyon (USA).

• **Session 6: Global gravity field modelling and EGM08.**
  • Chairs: Nikos Pavlis (USA) and Jianliang Huang (Canada).

• **Session 7: Temporal gravity changes and geodynamics.**
  • Chairs: Nico Sneeuw (Germany) and Juergen Kusche (Germany).

• **Session 8: Earth observation and the Global Geodetic Observing System (GGOS).**
  • Chairs: Richard Gross (USA) and Hans-Peter Plag (USA), and

• **Session 9: Geodetic monitoring of natural hazards and a Changing Environment.**
  • Chairs: Alexander Braun (Canada) and Rene Forsberg (Denmark).

Besides the Sessions and simultaneously with the meeting, five Working Group meetings also took place. These meetings were the IAG ICP 1.2: Vertical Reference Frames, the IAG Inter-Commission 2.1 Working Group on Absolute Gravimetry, the Sub-Commission 2.3: Dedicated Satellite Gravity Mapping Missions, the Joint IGFC/Commission-2 Working Group, and the IAG Study Group 2.2: High-Resolution Forward Gravity.

The symposium conveners and the session chairs decided on the acceptance of the submitted abstracts. The session chairs took an active role in the selection of papers for oral and poster presentations. In addition, they organized the review process for the papers presented in this Volume of Proceedings. The submitted papers were thoroughly reviewed by a panel of more than 65 international reviewers. This Volume contains a representative sample of 91 accepted papers from all sessions.

The scientific committee of this IAG International Symposium consisted of Michael G. Sideris (Canada), Yoichi Fukuda (Japan), Stelios P. Mertikas (Greece), Rene Forsberg, (Denmark), Pieter Visser (The Netherlands), Hermann Drewes (Germany), Leonid F. Vitushkin (France), Martin Vermeer (Finland), Roland Pail (Austria), Urs Marti (Switzerland), Nico Sneeuw (Germany), Jacques Hinderer (France), Juergen Kusche (Germany), Roger Haagmans (The Netherlands), and Steve C. Kenyon (USA).

The local organizing committee consisted of Stelios P. Mertikas (Symposium convener), Mrs. R. Papadaki (Secretary), Mrs. G. Tsiskaki (Public Relations) as well as Ach. Tripolitistiotis, X. Fratzis, Th. Papadopoulos, E. Ieronimidi, and P. Partsinivelos. We are also grateful to our graduate students D. Zacharaki, K. Manousaki, Z. Papadaki, F. Stathogianni and Ch. Apostolaki for their help and continuous support.

The IAG Executive Committee also approved several travel awards for students to attend the GGEO2008 Symposium under the direction of IAG Secretary General, Hermann Drewes.

Financial support and promotional support was given by a number of agencies. Special thanks go to the International Association of Geodesy, the Technical University of Crete, the European Space Agency, the Technical Chamber of Greece, Division of West Crete, the Hellenic National Cadastre (Ktimatologio, SA), the Chania Chamber of Commerce and Industry, Agro-Land, S.A. and the National Aeronautics and Space Administration, the Holy Monastery of Agia Triada of Jagarolon, Chania, Crete, the Prefecture of Chania and the Greek National Tourism Organization have also subsidized this International GGEO2008 Symposium.

To all individuals who have, in one way or another, been involved in the preparation of this International GGEO2008 Symposium and to all Organizations, Session
Chairs and Committees that have given their support, I extend sincere thanks. It is their hard work and support that laid the foundation for the success of this event. In addition to those cited above for their assistance, I am also grateful to the President of IAG, Michael G. Sideris, the IAG Secretary General, Hermann Drewes and the president of the University, Joachim Gryspolakis for their help and support.

A final word of thanks goes to Sessions Chairs who organized the review process of the submitted papers, the external reviewers and to Rania Papadaki who put many extra hours into checking the format of papers, collecting and organizing the revised manuscripts.

Chania, 23 July 2009

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Gravity, Geoid and Earth Observation
IAG Commission 2: Gravity Field, Chania, Crete, Greece,
23-27 June 2008
Mertikas, S.P. (Ed.)
2010, XXXIV, 702 p. 340 illus., Hardcover
ISBN: 978-3-642-10633-0