

IAG Reference Frames

G01. Reference frames

Session: **G01-1**
 Session title: International terrestrial reference frame
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 08:30 - 10:00
 Room: Room 502
 Chairs: Geoffrey Blewitt (University of Nevada, Reno)
 Johannes Böhm (Technische Universität Wien)

| Time | Title | Program No. |
|-------|--|---------------------|
| 08:30 | Status of the International Terrestrial Reference Frame: ITRF2014 and future developments <u>Zuheir Altamimi</u> , Paul Rebischung, Laurent Metivier, Xavier Collilieux, Kristel Chanard | G01-1-01 |
| 08:45 | Analysis of the seasonal parameters estimated in the ITRF2014 processing <u>Xavier Collilieux</u> , <u>Zuheir Altamimi</u> , Paul Rebischung, Laurent Metivier, Kristel Chanard | G01-1-02 |
| 09:00 | JTRF2014: A Time Series Representation of the ITRF <u>Richard Gross</u> , Claudio Abbondanza, T. Mike Chin, Mike Heflin, Jay Parker, Xiaoping Wu | G01-1-03 invited |
| 09:15 | DGFI-TUM analysis and scale investigations of the latest terrestrial reference frame realizations Mathis Blossfeld, <u>Detlef Angermann</u> , Manuela Seitz | G01-1-04 invited |
| 09:30 | IGS14/igs14.atx: Implications for IGS products Paul Rebischung, Ralf Schmid, <u>Xavier Collilieux</u> , <u>Zuheir Altamimi</u> | G01-1-05 invited |
| 09:45 | The status of DORIS in light of ITRF2014 <u>Frank Lemoine</u> , Laurent Soudarin, Guilhem Moreaux, Hugues Capdeville, Jean-Michel Lemoine, Pascale Ferrage, Jerome Saunier, Denise Dettmering, Marek Ziebart, Pascal Willis, Patrick Michael | G01-1-06 |

Session: **G01-2**
 Session title: Celestial reference frame and VLBI
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 10:30 - 12:00
 Room: Room 502
 Chairs: Zuheir Altamimi (Institut National de l'Information Géographique et Forestière)
Geoffrey Blewitt (University of Nevada, Reno)

| Time | Title | Program No. |
|-------|---|---------------------|
| 10:30 | Progress towards the third realisation of the International Celestial Reference Frame <u>Patrick Charlot</u> | G01-2-01 invited |
| 10:45 | Testing of special relativity with geodetic VLBI <u>Oleg Titov</u> , Hana Krasna | G01-2-02 |
| 11:00 | Correlated atmosphere noise in VLBI analysis <u>Hana Krasna</u> , John Gipson | G01-2-03 |
| 11:15 | Ray-traced delays and global reference frames with geodetic VLBI David Mayer, Hana Krasna, Daniel Landskron, <u>Johannes Boehm</u> | G01-2-04 |
| 11:30 | Space tie satellites for millimetre geodesy – a VLBI perspective <u>Lucia Plank</u> , Jamie McCallum, Andreas Hellerschmied, Johannes Boehm, Jing Sun | G01-2-05 |

Session: **G01-3**
 Session title: Reference frame methodology and implementation
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 13:30 - 15:00
 Room: Room 502
 Chairs: Johannes Böhm (Technische Universität Wien)
Zuheir Altamimi (Institut National de l'Information Géographique et Forestière)

| Time | Title | Program No. |
|-------|---|-------------|
| 13:30 | Robust realization of a no-net rotation reference frame on a deforming tectonic plate <u>Geoffrey Blewitt</u> , Corne Kreemer, William C. Hammond | G01-3-01 |
| 13:45 | Three Dimensional Strain-Rate Field from Geodetic Measurements on the Surface Arturo Villiger, <u>Alain Geiger</u> , Fabian Neyer, Elmar Brockmann | G01-3-02 |
| 14:00 | Spatially correlated ground deformation models in reference frame estimation <u>T. Mike Chin</u> , Claudio Abbondanza, Richard Gross, Mike Heflin, Jay Parker, Benedikt Soja, Xiaoping Wu | G01-3-03 |
| 14:15 | Differential station coordinates changes (velocities) versus coordinate differences (epoch solutions) for realising the time dependence in ITRF <u>Hermann Drewes</u> | G01-3-04 |

14:30 **Kalman filter terrestrial reference frame solutions based on time-variable process noise** G01-3-05
Benedikt Soja, Richard Gross, Claudio Abbondanza, Toshio Chin, Michael Heflin, Xiaoping Wu, Kyriakos Balidakis, Tobias Nilsson, Susanne Glaser, Maria Karbon, Robert Heinkelmann, Harald Schuh

14:45 **Variant and Invariant Properties of Coordinate Transformation** G01-3-06
Gilad Even-Tzur

Session: **G01-4**
 Session title: Combination and co-location of space geodetic techniques
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 16:30 - 18:00
 Room: Room 502
 Chairs: Geoffrey Blewitt (University of Nevada, Reno)
 Johannes Böhm (Technische Universität Wien)

| Time | Title | Program No. |
|-------|---|---------------------|
| 16:30 | E-GRASP/Eratosthenes: a satellite mission for improving the Terrestrial Reference Frame <u>Markus Rothacher</u> , Richard Biancale, E-GRASP Science Team | G01-4-01 invited |
| 16:45 | Lunar Laser Ranging as tie between terrestrial and space reference systems <u>Franz Hofmann</u> , <u>Juergen Mueller</u> | G01-4-02 |
| 17:00 | Double-Differences Over Time for Space Geodesy Techniques with GNSS Satellites and Lunar Laser Reflectors <u>Drazen Svehla</u> , Markus Rothacher | G01-4-03 |
| 17:15 | Multi-Year Analysis of GNSS Local Ties at Fundamental Sites <u>Ivan Dario Herrera Pinzon</u> , Markus Rothacher | G01-4-04 |
| 17:30 | Non-linear Geocenter Motion from Multi-Technique Geocentric Station Coordinate Time Series in a Terrestrial Reference Frame on Dynamic Earth and GRACE Gravity Data <u>Xiaoping Wu</u> , Juergen Kusche, Felix Landerer | G01-4-05 |

Session: **G01-5**
 Session title: Regional reference frames and networks I
 Type: Oral
 Date: Thursday, August 3, 2017
 Time: 08:30 - 10:00
 Room: Room 502
 Chairs: Zuheir Altamimi (Institut National de l'Information Géographique et Forestière)
 Geoffrey Blewitt (University of Nevada, Reno)

| Time | Title | Program No. |
|-------|---|---------------------|
| 08:30 | The Geocentric Datum of Australia 2020 <u>John Dawson</u> , Michael Moore, Guorong Hu, Craig Harrison, Nicholas Brown | G01-5-01 invited |
| 08:45 | Continuing and Emerging Roles of National GNSS CORS as Geodetic Infrastructure: Case study of GEONET in Japan <u>Hikomichi Tsuji</u> , Yuki Hatanaka, Yohei Hiyama, Satoshi Kawamoto, Tomoaki Furuya, Basara Miyahara, Toshihiro Yahagi, Tatsuya I. Yamashita, Hiroshi Munekane | G01-5-02 invited |
| 09:00 | Japan-1sec1cm accuracy -Geodetic Network Adjustment <u>Hiroyuki Hasegawa</u> | G01-5-03 |
| 09:15 | Restoring the New Zealand Geodetic Datum after the 2016 Kaikoura Earthquake <u>Chris Crook</u> , Nic Donnelly, Ian Hamling | G01-5-04 |
| 09:30 | SHRF16: A Stable Houston Reference Frame for Faulting and Subsidence Study in the Houston Metropolitan Area, Texas, U.S.A. <u>Guoquan Wang</u> , Timothy Kearns, Hanlin Liu, Eleanor Dietz, Vasilios Tsibanos | G01-5-05 |
| 09:45 | Station calibration of the SWEPOS GNSS Network <u>Martin Lidberg</u> , Per Jarlemark, Jan Johansson, Kent Ohlsson, Lotti Jivall | G01-5-06 |

Session: **G01-6**
 Session title: Regional reference frames and networks II
 Type: Oral
 Date: Thursday, August 3, 2017
 Time: 10:30 - 12:00
 Room: Room 502
 Chairs: Johannes Böhm (Technische Universität Wien)
 Zuheir Altamimi (Institut National de l'Information Géographique et Forestière)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | Foundation CORS: Underpinning a New Positioning Framework <u>Daniel Roman</u> , Kevin Choi | G01-6-01 |
| 10:45 | ITRF2014/IGS14 European Regional Densification Using the EPN Long Term Daily SINEX product <u>Ambrus Kenyeres</u> , Tomasz Liwosz, Juliette Legrand, Christof Voelksen, Andrzej Araszkiewicz, Jan Dousa, Daniel Ineichen, Elmar Brockman, Marcellino Valdes | G01-6-02 |

| | | | | |
|-------|---|----------|--|----------|
| 11:00 | Near real time modelling of coseismic and post-seismic deformation for NetworkRTK applications <u>Paul Denys</u> , Chris Pearson | G01-6-03 | Assimilation of satellite altimetry, gravity, leveling and GOCE data for the definition of the Saudi Arabia National Reference Frame (SANVRF) <u>George S. Vergos</u> , Rossen Grebenitcharsky, Dimitrios A. Natsiopoulos, Othman Al-Kherayef, Bandar Al-Musulmani | G01-P-07 |
| 11:15 | New Zealand Vertical Datum 2016, an improved gravimetric reference frame <u>Matt Amos</u> , Rachele Winefield | G01-6-04 | Assessment of displacement models used in time-dependent transformations. The particular case of California. <u>Daphne Lercier</u> | G01-P-08 |
| 11:30 | The leveling net adjustment with a correction for altitude variations obtained from GNSS-based control stations data <u>Tatsuya Yamashita</u> , Takashi Toyofuku, Kensuke Kokado, Satoru Nemoto, Hiroyuki Tanaka, Yu Morishita | G01-6-05 | Verification of accelerated vertical crustal movements in the Tohoku region prior to the 2011 Tohoku-Oki earthquake by reanalysis of GEONET data using Precise Point Positioning <u>Yo Kawashima</u> , Takeshi Sagiya | G01-P-09 |
| 11:45 | Precise leveling, tide gauge and satellite altimetry for definition of Saudi Arabia National Reference Frame (SANVRF) – Jeddah'2014 <u>Rossen Grebenitcharsky</u> , George Vergos, Othman Al-Kherayef, Bandar Al-Musulmani, Rene Forsberg | G01-6-06 | Modeling vertical displacements at stations of the Geocentric Reference System for the Americas (SIRGAS) due to hydrological load Claudio Brunini, <u>Laura Sanchez</u> , Romina Galvan, Hermann Drewes, Mauricio Gende | G01-P-10 |

Session: **G01-P**
Type: Poster
Date: Tuesday, August 1/ Wednesday, August 2, 2017
Time: 15:30 - 16:30
Room: Shinsho Hall

| Title | Program No. |
|--|-------------|
| Estimation of Post Seismic Deformation Model Using Monte Carlo Method <u>Takayuki Miyazaki</u> | G01-P-01 |
| Impact of different TRF station coordinate parameterizations on VLBI combined EOP Sabine Bachmann, <u>Daniela Thaller</u> | G01-P-02 |
| Investigations on scale factor from VLBI observations <u>Hana Krasna</u> , Oleg Titov, Igor Surkis, Dmitrii Ivanov, Alexey Melnikov | G01-P-03 |
| IGRS2013 Deformation Model: Linear Velocities and Co-seismic Deformation <u>Susilo Susilo</u> , Hasanuddin Z. Abidin, Irwan Meilano, Endra Gunawan, Benyamin Sapiie, Dina A. Sarsito, Heri Andreas, Dhota Pradipta, Antonius B. Wijanarto, Joni Efendi | G01-P-04 |
| Investigating the performance of the GNSS-SLR co-location on-board GNSS satellites for reference frame determination <u>Sara Bruni</u> , Paul Rebeschung, Susanna Zerbini, Zuheir Altamimi, Maddalena Errico, Efsio Santi | G01-P-05 |
| Developing a semi-dynamic datum for Nepal after the April 25 Gorka Earthquake Christopher Pearson, Niraj Manandhar, <u>Paul Denys</u> | G01-P-06 |
| SIRGAS: the core geodetic infrastructure in Latin America and the Caribbean Victor Cioco, <u>Laura Sanchez</u> , Marco Aurelio de Almeida, Jose Guillermo Gasca, Hernan Guagni, Alfonso Morillo, Hector Parra, Oscar Rodriguez, Norbertino Suarez, Jose Francisco Valverde | G01-P-11 |
| On adopting a realization of the EVRS as the national height system in mainland Portugal <u>Manuela Vasconcelos</u> , Ana Carla Bernardes, Helena Ribeiro | G01-P-12 |
| IDS DORIS analysis centre Geodetic Observatory Pecny: development and research <u>Petr Stepanek</u> , Michal Buday, Vratislav Filler | G01-P-13 |
| Assessment of the impact of session types, observation time span, network geometry and -size on the estimation of radio source coordinates Maria Karbon, Santiago Belda, <u>Robert Heinkelmann</u> , Tobias Nilsson, Harald Schuh | G01-P-14 |

IAG Gravity field

G02.

Static gravity field

Session: **G02-1**

Session title: Theory and methods

Type: Oral

Date: Monday, July 31, 2017

Time: 08:30 - 10:00

Room: Room 502

Chairs: Pavel Novak (University of West Bohemia, Pilsen)
Michael Schmidt (Technical University of Munich)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Rectangular rotation of spherical harmonic expansion of arbitrary high degree and order <u>Toshio Fukushima</u> | G02-1-01 |
| 08:45 | Gravitational contribution of a spherical tesseroid by means of mapping it into sectors of spherical band <u>Anna Maria Marotta</u> , Riccardo Barzaghi | G02-1-02 |
| 09:00 | Boundary complexity in classical and variational concepts of solving geodetic boundary value problems <u>Petr Holota</u> , Otakar Nesvadba | G02-1-03 |
| 09:15 | MRR and LSC – A mutual benefit for advanced regional gravity field modeling <u>Michael Schmidt</u> , Verena Lieb, Martin Willberg, Roland Pail | G02-1-04 |
| 09:30 | Properties and applications of gravity-field curvatures in geodesy <u>Pavel Novak</u> | G02-1-05 |
| 09:45 | Direct topographical effect on the airborne gravity disturbance for Helmert's second method of condensation <u>Jianliang Huang</u> , Marc Veronneau, John W. Crowley | G02-1-06 |

Session: **G02-2**

Session title: Gravimetry

Type: Oral

Date: Monday, July 31, 2017

Time: 10:30 - 12:00

Room: Room 502

Chairs: Yoichi Fukuda (Kyoto University)
Leonid Vitushkin (D.I. Mendeleev Institute for Metrology)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | Closing the GOCE polar gap in Antarctica from airborne gravity and derived gravity gradients <u>Rene Forsberg</u> , Arne Olesen, Tom Jordan, Fausto Ferraccioli, Kenichi Matsuoka, Hasan Yildiz | G02-2-01 |

10:45 **A Comparison of Airborne Vector Gravimeter Measurements with the NOAA Geoid Slope Validation Survey 2014**

Stephen Ferguson, Yan Ming Wang, Stefan Elieff, Simon Holmes, Xiaopeng Li, Kevin Ahlgren, Ruifeng Xi

G02-2-02

11:00 **Evaluation of the contribution of optical clocks to gravity field modelling**

Juergen Mueller, Hu Wu

G02-2-03

11:15 **Cold Atom Interferometers Used In Space (CAIUS) for measuring the Earth's gravity field**

Olivier Carraz, Luca Massotti, Christian Siemes, Roger Haagsmans, Linda Mondin, Pierluigi Silvestrin, Michael Kern

G02-2-04

11:30 **An innovative tool for marine Gravimetry: results of a survey with a cold atom gravimeter**

Marie-Francoise Lalancette, Didier Rouxel, Yannick Bidet, Alexandre Bresson, Nassim Zahzam, Sylvain Lucas, Cedric Blanchard, Gildas Delachienne

G02-2-05

11:45 **Development of a high-accuracy gravity measurement system onboard a moving autonomous underwater vehicle**

Takemi Ishihara, Masanao Shinohara, Akito Araya, Tomoaki Yamada, Toshihiko Kanazawa, Hiromi Fujimoto, Satoshi Tsukioka, Shinobu Omika, Kenji Uehira, Masashi Mochizuki, Tsuyoshi Yoshiume, Kokichi Iizasa

G02-2-06

Session: **G02-3**

Session title: Regional gravity and geoid

Type: Oral

Date: Tuesday, August 1, 2017

Time: 08:30 - 10:00

Room: Room 502

Chairs: Hussein Abd-Elmotaal (Minia University)
Riccardo Barzaghi (Politecnico di Milano)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | An improved gravimetric geoid model for Japan based on the Stokes–Helmert scheme with a deterministically modified Stokes' kernel <u>Koji Matsuo</u> , Takayuki Miyazaki, Basara Miyahara, Yuki Kuroishi | G02-3-01 |
| 08:45 | AFRGDB_V2.0: The Gravity Database for the Determination of the Earth's Mathematical Surface in Africa <u>Hussein Abd-Elmotaal</u> , Kurt Seitz, Norbert Kuehtreiber, Bernhard Heck | G02-3-02 |
| 09:00 | Terrestrial gravity data for a new Russian quasigeoid model <u>Ilya Oshchepkov</u> | G02-3-03 |
| 09:15 | DRUKGEOID15: The new geoid of Bhutan Machiel Bos, <u>Rui Fernandes</u> , Kinzang Thinley, Jampheh Gyeltshen | G02-3-04 |

| | | |
|-------|--|----------|
| 09:30 | Combining airborne and terrestrial gravity data to improve the geoid model in Brazil <u>Gabriel do Nascimento Guimaraes</u> , Ana Cristina Oliveira Cancoro de Matos, Denizar Blitzkow | G02-3-05 |
| 09:45 | The gravimetric component of AUSGeoid2020 and its error model <u>Sten Claessens</u> , Jack McCubbine, Will Featherstone, Nick Brown | G02-3-06 |

Session: **G02-4**
 Session title: Gravity field modelling and applications
 Type: Oral
 Date: Tuesday, August 1, 2017
 Time: 10:30 - 12:00
 Room: Room 502
 Chairs: Roland Pail (Technical University of Munich)
 Dan Roman (National Oceanic and Atmospheric Administration)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | NGS Annual GRAV-D enhanced Geoid Models – xGEID2017: What is new and the results <u>Yan Ming Wang</u> , Simon Holmes, Xiaopeng Li, Kevin Ahlgren | G02-4-01 |
| 10:45 | High-resolution modelling of the static gravity field from the GOCE gravity gradients using meshless boundary collocation techniques <u>Robert Cunderlik</u> | G02-4-02 |
| 11:00 | Satellite gravimetry from tracking: do it right, and for better <u>Peiliang Xu</u> | G02-4-03 |
| 11:15 | Evaluation of Dynamic Heights on the Great Lakes <u>Daniel Roman</u> , Xiaopeng Li | G02-4-04 |
| 11:30 | Results from GOCE++ Dynamical Coastal Topography and tide gauge unification using altimetry and GOCE <u>Ole Andersen</u> , Per Knudsen, Karina Nielsen, Chris Hughes, Rory Bingham, Michael Kern, Guy Woppelmann, Mederic Garvelle, Luciana Fenoglio-Marc | G02-4-05 |
| 11:45 | A new OGMOC mean dynamic topography model – DTU17MDT <u>Per Knudsen</u> , Ole Andersen, Thomas Gruber, Thomas Fecher, Nikolai Maximenko | G02-4-06 |

Session: **G02-5**
 Session title: Altimetry and marine geoid
 Type: Oral
 Date: Tuesday, August 1, 2017
 Time: 13:30 - 15:00
 Room: Room 502
 Chairs: Xiaoli Deng (University of Newcastle)
 Per Knudsen (Technical University of Denmark)

| Time | Title | Program No. |
|-------|---|-------------|
| 13:30 | The GEOMED2 project: Geoid estimation in the Mediterranean Area <u>Riccardo Barzaghi</u> , Georgios Vergos, Alberta Albertella, Daniela Carrion, Ilias N. Tziavos, Vassilios N. Grigoriadis, Dimitrios A. Natsiopoulou, Sean Bruinsma, Sylvain Bonvalot, Lucia Seoane, Franck Reinquin, Marie-Francoise Lequentrec-Lalancette, Corinne Salaun, Pascal Bonnefond, Per Knudsen, Ole Andersen, Mehemet Simav, Hasan Yildiz, Tomislav Basic, Matei Varga, Olga Bjelotomic | G02-5-01 |
| 13:45 | Geomed2: gravimetric versus combined geoid model <u>Sean Bruinsma</u> , Sylvain Bonvalot, Franck Reinquin, Lucia Seoane | G02-5-02 |
| 14:00 | Overview of the FAMOS efforts to improve the Baltic Sea geoid model by new marine gravity measurements <u>Jonas Agren</u> , Joachim Schwabe, Gabriel Strykowski, Rene Forsberg, Gunter Liebsch, Christoph Foerste, Franz Barthelmes, Mirjam Bilker-Koivula, Artu Ellmann, Silja Maerda | G02-5-03 |
| 14:15 | The altimetry-derived marine gravity field for enhanced geodetic and geological studies around Taiwan <u>Xiaoli Deng</u> , Cheinway Hwang, Ole B. Andersen, Mark G. Stewart | G02-5-04 |
| 14:30 | Towards a new Global marine gravity field based on SARAL/ALtiKa, Jason-1 and Cryosat-2 Geodetic Missions <u>Ole Andersen</u> , Per Knudsen, Carsten Ludwidsen, Adil Abulaitijiang | G02-5-05 |
| 14:45 | Comparing marine gravity and satellite altimetry in the Mediterranean area <u>R. Barzaghi</u> , D. Carrion, C. De Gaetani, A. Albertella, G. Vergos, A. Abulaitijiang, O. Andersen, P. Knudsen, I. N. Tziavos, M.-F. Lequentrec-Lalancette, C. Salaun | G02-5-06 |

Session: **G02-6**
 Session title: Height systems
 Type: Oral
 Date: Tuesday, August 1, 2017
 Time: 16:30 - 18:00
 Room: Room 502
 Chairs: Jonas Ågren (KTH Royal Institute of Technology)
 Michael Sideris (The University of Calgary)

| Time | Title | Program No. |
|-------|--|-------------|
| 16:30 | Establishing an IHRS reference station <u>Georgios S. Vergos</u> , Ilias N. Tziavos | G02-6-01 |
| 16:45 | The permanent tide and the International Height Reference System IHRS <u>Jaakko Makinen</u> | G02-6-02 |
| 17:00 | On the practical realization of the fixed GBVP approach for a unification of height systems in Central Europe <u>Thomas Grombein</u> , Lucas Porz, Kurt Seitz, Bernhard Heck | G02-6-03 |
| 17:15 | Height datum unification by patching local geoid models Mirko Reguzzoni, Georgios S. Vergos, Giovanna Sona, <u>Riccardo Barzaghi</u> , Ilias N. Tziavos, Alberta Albertella, Daniela Carrion, Carlo I. De Gaetani, Lorenzo Rossi | G02-6-04 |
| 17:30 | NGS' Gravity for the Redefinition of the American Vertical Datum Project Update and Developments <u>Vicki Childers</u> , Monica Youngman, Theresa Damiani | G02-6-05 |
| 17:45 | SAR and SARIN contribution to Height System Unification in Greece Ourania Altiparmaki, <u>Georgios S. Vergos</u> , Ole Andersen | G02-6-06 |

Session: **G02-P**
 Type: Poster
 Date: Tuesday, August 1/ Wednesday, August 2, 2017
 Time: 15:30 - 16:30
 Room: Shinsho Hall

| Title | Program No. |
|--|-------------|
| Comparison of spherical and spheroidal harmonics for ultra-high-resolution global gravity modelling <u>Sten Claessens</u> | G02-P-01 |
| What is the real meaning of the Secondary Indirect Effect? Petr Vanicek, Robert Kingdon, Peter Vajda, <u>Jianliang Huang</u> | G02-P-02 |
| Regional geoid computation by Least Squares Modified Hotine's formula with Additive Corrections Silja Mardla, Artu Ellmann, <u>Jonas Ågren</u> , Lars E. Sjöberg | G02-P-03 |
| Establishment of the new Japan Gravity Standardization Network (JGSN) 2016 <u>Kenji Yoshida</u> , Toshihiro Yahagi | G02-P-04 |

Local hydrological disturbances on gravity revealed by simultaneous observation with a gPhone and a superconducting gravimeter
Kazuma Mochizuki, Kazunari Nawa, Yuichi Imanishi

G02-P-05

Combined use of a superconducting gravimeter and Scintrex gravimeters for hydrological correction of precise gravity measurements - A superhybrid gravimetry
Yuichi Imanishi, Kazunari Nawa, Yoshiaki Tamura, Hiroshi Ikeda, Ryo Honda, Takashi Okuda, Makoto Okubo

G02-P-06

Application of Local Functions in Airborne Gravimetry for Regional Geoid Improvement
Xiaopeng Li, Yan Ming Wang

G02-P-07

Gross-Error Detection using Artificial Neural Networks for the Gravity Database in Egypt
Hussein Abd-Elmotaal, Mostafa Ashry

G02-P-08

Topographic correction and covariance function modelling over the coastal regions
Adili Abulaitijiang, Riccardo Barzaghi, Ole Baltazar Andersen, Per Knudsen

G02-P-09

Geoid and Moho-depth modeling in Cyprus
Ilias N. Tziavos, Georgios S. Vergos, Vassilios N. Grigoriadis, Efstratios Stylianidis

G02-P-10

Preliminary Results of Mass Redistribution from Repeated Campaigns of Precision Gravimetry in the Wandan Mud Volcano, Taiwan
Kai-Chien Cheng, Ling-Ho Chung, Ricky Kao, Yuan-Hsi Lee

G02-P-11

Determination of Moho depth models for Greece using different gravity inversion methods
Vassilios Grigoriadis, Ilias Tziavos

G02-P-12

Towards the best GOCE gravity gradients
Christian Siemes, Roger Haagmans, Michael Kern

G02-P-13

GOCE and beyond: Status and activities
Rune Floberghagen, Roger Haagmans, Michael Kern

G02-P-14

Evaluation of the gravity and altimetry data in the Baltic Sea region and computation of the new quasi-geoid model for the territory of Poland
Adam Lyszkowicz, Joanna Kuczynska-Siehiem

G02-P-15

PCA and along track filtering of Cryosat2 SSH for DOT modeling in the Mediterranean
Dimitrios Natsiopoulos, Georgios Vergos, Ilias Tziavos

G02-P-16

The GEOMED2 project: Multi-resolution aspects and aliasing in topographic effects for geoid and gravity determination

Riccardo Barzaghi, Georgios S. Vergos, Alberta Albertella, Daniela Carrion, Ilias N. Tziavos, Vassilios N. Grigoriadis, Dimitrios A. Natsiopoulou, Sean Bruinsma, Lucia Seoane, Franck Reinquin, Marie-Françoise Lequentrec-Lalancette, Corinne Salaun, Pascal Bonnefond, Per Knudsen, Ole Andersen, Mehmet Simav, Hasan Yildiz, Tomislav Basic, Matej Varga, Olga Bjelotomic, Antonio J. Gil

G02-P-17

The GEOMED2 project: Geoid and circulation in the Mediterranean Sea

R. Barzaghi, G. S. Vergos, A. Albertella, D. Carrion, I. N. Tziavos, V. N. Grigoriadis, D. A. Natsiopoulou, S. Bruinsma, S. Bonvalot, L. Seoane, F. Reinquin, M.-F. Lequentrec-Lalancette, C. Salaun, P. Bonnefond, P. Knudsen, O. Andersen, M. Simav, H. Yildiz, T. Basic, M. Varga, O. Bjelotomic

G02-P-18

CryoSat-2-only gravity model of the Arctic ocean: case study in Greenland Sea

Adili Abulaitijiang, Ole Baltazar Andersen, Per Knudsen

G02-P-19

Local vertical datum validation through the incorporation of GOCE variance and covariance information

Vassilios D. Andritsanos, Vassilios N. Grigoriadis, Georgios S. Vergos, Thomas Gruber, Thomas Fecher

G02-P-20

Influence of the atmosphere on the evaluation of the geopotential from global models on the surface of the Earth: implications for the W0 and the realization of the International Height Reference System

Jaakko Makinen

G02-P-21

International Digital Elevation Model Service (IDEMS): A Revived IAG Service

Kevin Kelly, Christian Hirt, Michael Kuhn, Riccardo Barzaghi

G02-P-22

G03. Time variable gravity field

Session: **G03-1**

Session title: Current and future satellite gravity missions

Type: Oral

Date: Wednesday, August 2, 2017

Time: 16:30 - 18:00

Room: Room 504+505

Chairs: Srinivas Bettadpur (University of Texas at Austin)
Shuanggen Jin (Shanghai Astronomical Observatory, Chinese Academy of Sciences)

| Time | Title | Program No. |
|-------|---|---------------------|
| 16:30 | Current Status of the GRACE Mission <u>Byron Tapley</u> , Frank Flechtner, Michael Watkins, Srinivas Bettadpur | G03-1-01 invited |
| 17:00 | GRACE Follow-On: Overview and Current Mission Status <u>Felix Landerer</u> , Frank Flechtner, Frank Webb, Michael Watkins, Christoph Dahle, Srinivas Bettadpur | G03-1-02 |
| 17:15 | Towards deriving temporal sampling requirements for future satellite gravimetry missions <u>David Wiese</u> , Christopher McCullough | G03-1-03 |
| 17:30 | Constellations of Next Generation Gravity Missions: mapping and mitigation of ocean tide model errors <u>Pieter Visser</u> | G03-1-04 |
| 17:45 | Status of development on the future accelerometers for next generation gravity missions <u>Bruno Christophe</u> , Françoise Liorzou, Damien Boulanger, Bernard Foulon, Vincent Lebat, Phuong-Anh Huynh, Nassim Zahzam, Yannick Bidet, Alexandre Bresson | G03-1-05 |

Session: **G03-2**

Session title: Time-varying gravity field estimation

Type: Oral

Date: Thursday, August 3, 2017

Time: 08:30 - 10:00

Room: Room 504+505

Chairs: Jürgen Kusche (University of Bonn)
Shuanggen Jin (Shanghai Astronomical Observatory, Chinese Academy of Sciences)

| Time | Title | Program No. |
|-------|---|-------------|
| 08:30 | Earth Mass Transport Mission 2 – Proposal for an Earth Explorer 9 Mission Thomas Gruber, Isabelle Panet, <u>Roland Pail</u> | G03-2-01 |

| | | |
|-------|--|----------|
| 08:45 | Time variable gravity from kinematic orbits of LEO satellites – A 15+ years series of monthly solutions without gaps <u>Norbert Zehentner</u> , Torsten Mayer-Guerr, Sebastian Strasser | G03-2-02 |
| 09:00 | Near real-time gravity and its applications in the era of Next Generation Gravity Missions - Insights on the ESA-ADDCON project Ilias Daras, Pieter Visser, Nico Sneeuw, Tonie van Dam, <u>Roland Pail</u> , Thomas Gruber, Qiang Chen, Wei Liu, Mohammad Tourian, Johannes Engels, Peyman Saemian, Christian Siemes, Roger Haagmans | G03-2-03 |
| 09:15 | GRACE Temporal Gravity Solution Techniques Based on Energy Balance Approach <u>C. K. Shum</u> , Chunli Dai, Kun Shang, Junyi Guo, Yu Zhang, Wei Feng, Ehsan Forootan, Ales Bezdek, Josef Sebera, Karoslav Klokocnik, Orhan Akyilmaz, Chungyen Kuo, Jurgen Kusche, Huseyin Merchan, Michael Schmidt, Min Zhong, Leonid Zotov | G03-2-04 |
| 09:30 | Amplitude-phase representation of GRACE spherical harmonic spectra <u>Nico Sneeuw</u> , Balaji Devaraju | G03-2-05 |
| 09:45 | Using Swarm and Sentinel observations for time-variable HI-SST gravity field determination <u>Christoph Dahle</u> , Daniel Arnold, Adrian Jaeggi, Ulrich Meyer, Rolf Koenig, Grzegorz Michalak, Karl Hans Neumayer | G03-2-06 |

Session: **G03-3**

Session title: Time-varying gravity field methods and solutions

Type: Oral

Date: Thursday, August 3, 2017

Time: 10:30 - 12:00

Room: Room 504+505

Chairs: Srinivas Bettadpur (University of Texas at Austin)
Jurgen Kusche (University of Bonn)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | Preliminary results from CSR RL06 GRACE gravity solutions <u>Himanshu Save</u> | G03-3-01 |
| 10:45 | Combination of monthly gravity field solutions – transition from an EGSIM prototype service into an IAG service <u>Adrian Jaggi</u> , Ulrich Meyer, Yomin Jean, Daniel Arnold | G03-3-02 |
| 11:00 | On computation of along-track potential and Line-of-Sight (LOS) acceleration difference using GRACE inter-satellite ranging data for time-variable gravity analysis <u>Khosro Ghobadi Far</u> , Shin-Chan Han, Bryant Loomis, Scott Luthcke | G03-3-03 |

| | | |
|-------|--|----------|
| 11:15 | Evaluating strategies for mitigating aliasing errors in GRACE-like satellite missions Balaji Devaraju, Matthias Weigelt, <u>Jurgen Mueller</u> | G03-3-04 |
| 11:30 | GRACE de-stripping by biharmonic thin-plate splines on the sphere <u>Wolfgang Keller</u> | G03-3-05 |
| 11:45 | SLR monthly gravity solutions using the C5++ software <u>Koji Matsuo</u> , Toshimichi Otsubo | G03-3-06 |

Session: **G03-4**

Session title: Mass transport and redistribution

Type: Oral

Date: Thursday, August 3, 2017

Time: 13:30 - 15:00

Room: Room 504+505

Chairs: Shuanggen Jin (Shanghai Astronomical Observatory, Chinese Academy of Sciences)
Jurgen Kusche (University of Bonn)

| Time | Title | Program No. |
|-------|--|-------------|
| 13:30 | Mapping probabilities of extreme continental water storage changes from space gravimetry <u>Jurgen Kusche</u> , Annette Eicker, Ehsan Forootan, Anne Springer, Laurent Longueuevigne | G03-4-01 |
| 13:45 | Glacier melting and GIA in Alaska estimated from joint GPS, ICESat and GRACE measurements <u>Shuanggen Jin</u> , Tengyu Zhang | G03-4-02 |
| 14:00 | Spatio-temporal downscaling of GRACE water storage changes data at catchment scale <u>Mohammad J. Tourian</u> , Nico Sneeuw | G03-4-03 |
| 14:15 | The potential of GRACE gravimetry to detect heavy rainfall-induced impoundment of a small reservoir in the upper Yellow River <u>Shuang Yi</u> , Chunqiao Song, Qiuyu Wang, Linsong Wang, Kosuke Heki, Wenke Sun | G03-4-04 |
| 14:30 | Detection and interpretation of multi-annual mass variation in GRACE monthly gravity solutions <u>Lorant Foldvary</u> , Annamaria Kiss | G03-4-05 |

Session: **G03-5**
 Session title: Solid-Earth and other applications
 Type: Oral
 Date: Thursday, August 3, 2017
 Time: 16:30 - 18:00
 Room: Room 504+505
 Chairs: Jürgen Kusche (University of Bonn)
 Srinivas Bettadpur (University of Texas at Austin)

| Time | Title | Program No. |
|-------|---|-------------|
| 16:30 | What GRACE/GRACE-FO satellite gravity may tell about the atmosphere (and what not) <u>Annette Eicker</u> , Anne Springer, Andreas Hense, Isabelle Panet, Juergen Kusche | G03-5-01 |
| 16:45 | Uncertainty of GRACE-borne long periodic and secular ice mass variations in Antarctica <u>Lorant Foldvary</u> , Annamaria Kiss | G03-5-02 |
| 17:00 | Ocean tide alias spectrum estimation for satellite gravity missions <u>Wei Liu</u> , Nico Sneeuw | G03-5-03 |
| 17:15 | Seasonal water mass variation in the Japan Sea from satellite gravimetry: Comparison with GNSS and seasonality in earthquake occurrences <u>Suguru Doto</u> , Kosuke Heki | G03-5-04 |
| 17:30 | Seismic gravity changes of the 2004 Sumatra-Andaman earthquake and static gravity anomaly <u>Yusaku Tanaka</u> , Kosuke Heki | G03-5-05 |
| 17:45 | Continuous time variations in relative gravity and tilt, observed by a CG-3M gravimeter during the inflation event at Sakurajima Volcano on August 15, 2015 <u>Takahito Kazama</u> , Keigo Yamamoto, Masato Iguchi, Yoichi Fukuda | G03-5-06 |

Session: **G03-P**
 Type: Poster
 Date: Thursday, August 3/ Friday, August 4, 2017
 Time: 15:30 - 16:30 / 15:00 - 16:00
 Room: Shinsho Hall

| Title | Program No. |
|--|-------------|
| ESA's Studies of Next Generation Gravity Mission Concepts Luca Massotti, Christian Siemes, Olivier Carraz, Roger Haagmans, Pierluigi Silvestrin, <u>Michael Kern</u> | G03-P-01 |
| Combination of monthly gravity fields on normal equation level Ulrich Meyer, <u>Adrian Jaeggi</u> , Yoomin Jean, Daniel Arnold | G03-P-02 |
| GNSS-based calibration of GRACE accelerometers Igor Koch, Akbar Shabanloui, Jakob Flury, <u>Juergen Mueller</u> | G03-P-03 |

Comparison of short-term iGrav superconducting gravimeter observations with local and global hydrological models
Hojjat Kabirzadeh, Dimitrios Piretzidis, Jeong Woo Kim, Michael G. Sideris

G03-P-04

Evaluation and Analysis of Ground Water Level Changes and Water Budget in the Northeast Poland
Joanna Kuczynska-Siehiem, Zofia Rzepecka, Monika Birylo, Ewa Andrasik, Jolanta Nastula

G03-P-05

A novel approach to study ice mass change by integration of satellite data in Greenland and Antarctica
Mohammad Bagherbandi, Hadi Amin Nureldin Gido, Lars E. Sjöberg

G03-P-06

IAG Earth rotation and Geodynamics

G04. Earth rotation and geodynamics

Session: **G04-1**
 Session title: Earth rotation and geodynamics I
 Type: Oral
 Date: Monday, July 31, 2017
 Time: 08:30 - 10:00
 Room: Room 504+505
 Chairs: Jianli Chen (University of Texas at Austin)
 Bernhard Steinberger (GFZ German Research Center for Geosciences)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Limited True Polar Wander as evidence that Earth's non-hydrostatic shape is persistently triaxial <u>Bernhard Steinberger</u> , Miriam-Lisanne Seidel, Trond Torsvik | G04-1-01 |
| 08:45 | Short-term Angular Momentum Forecasts for Polar Motion Prediction <u>Maik Thomas</u> , Robert Dill, Henryk Dobslaw, Christian Bizouard | G04-1-02 |
| 09:00 | Geophysical interpretation of long-term polar motion <u>Jianli Chen</u> | G04-1-03 |
| 09:15 | Hydrological excitation of polar motion by different representations of Earth's gravity field <u>Jolanta Nastula</u> , Malgorzata Winska, Waldemar Popinski | G04-1-04 |

09:30 **Global and regional comparison of hydrological excitation functions of polar motion by GRACE data and climate models**
Justyna Sliwinska, Jolanta Nastula

G04-1-05

Session: **G04-2**

Session title: Earth rotation and geodynamics II

Type: Oral

Date: Monday, July 31, 2017

Time: 10:30 - 12:00

Room: Room 504+505

Chairs: Manabu Hashimoto (Kyoto University)
 Alberto Escapa (University of Alicante)

| Time | Title | Program No. |
|-------|--|-------------|
| 10:30 | On application of the Kalman filter for high resolution estimation of Earth orientation parameters using the ring laser and VLBI data <u>Monika Tercjak</u> , Aleksander Brzezinski, Tobias Nilsson, Harald Schuh | G04-2-01 |
| 10:45 | Corrections to IAU2000 nutation series for consistency with IAU2006 precession <u>Alberto Escapa</u> , Jose Manuel Ferrandiz, Tomas Baenas, Juan Getino | G04-2-02 |
| 11:00 | EOP prediction based on the Copula method using multi-source data <u>Sadegh Modiri</u> , Robert Heinkelmann, Santiago Belda, Jose M. Ferrandiz, Harald Schuh | G04-2-03 |
| 11:15 | Excitation study of the observed Chandler wobble based on GRACE and SLR gravity data <u>Aleksander Brzezinski</u> , Jolanta Nastula | G04-2-04 |
| 11:30 | Determination of accuracy information for effective angular momentum functions derived from gravity field observations Franziska Goettl, Mathis Blossfeld, Alexander Kehm, <u>Michael Schmidt</u> , Florian Seitz | G04-2-05 |
| 11:45 | Empirical approach to the consistency and accuracy of the current IAU 2006/2000A precession-nutation model Santiago Belda, <u>Jose M. Ferrandiz</u> , Robert Heinkelmann, Maria Karbon, Tobias Nilsson, Harald Schuh | G04-2-06 |

Session: **G04-3**

Session title: Earth rotation and geodynamics III

Type: Oral

Date: Tuesday, August 1, 2017

Time: 08:30 - 10:00

Room: Room 504+505

Chairs: Manabu Hashimoto (Kyoto University)
 Alvaro Santamaria-Gomez (Universite de Toulouse)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Long-baseline laser strainmeter constructed at the underground KAGRA site in Kamioka as a new tool for monitoring crustal dynamics <u>Akito Araya</u> , Akiteru Takamori, Wataru Morii, Kouseki Miyo, Masatake Ohashi | G04-3-01 |
| 08:45 | First year of gravity signal records with the iGrav-027 superconducting gravimeter <u>Przemyslaw Dykowski</u> , Marcin Sekowski, Jan Krynski | G04-3-02 |
| 09:00 | Loading effects caused by storm surges in the Rio de La Plata / Argentina: A model proof by a high resolution gravity time series <u>Hartmut Wziontek</u> , Fernando Oreiro, Ezequiel Antokoletz, Enrique D'Onofrio, Monica Fiore, Claudia Tocho | G04-3-03 |
| 09:15 | Constraining vertical land motion of tide gauges (IAG JWG 3.2): combination of velocity fields <u>Alvaro Santamaria-Gomez</u> , Matt King, Tilo Schone, Tonie van Dam, Guy Woppelmann | G04-3-04 |
| 09:30 | Estimates of vertical velocity errors for IGS ITRF2014 stations by applying the improved singular spectrum analysis method and environmental loading models <u>Janusz Bogusz</u> , Marta Gruszczynska, Anna Klos, Machiel S. Bos, Jean-Paul Boy | G04-3-05 |
| 09:45 | Vertical velocity profile and possible velocity changes in SW Japan from GNSS data over the last 20 years <u>Yutaro Iwasa</u> , Kosuke Heki | G04-3-06 |

Session: **G04-4**

Session title: Earth rotation and geodynamics IV

Type: Oral

Date: Tuesday, August 1, 2017

Time: 10:30 - 12:00

Room: Room 504+505

Chairs: Janusz Bogusz (Military University of Technology)
 Haluk Ozener (Bogazici University)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | Actual Continuous Kinematic Model (ACKIM) of the Earth Crust based on ITRF2014 <u>Hermann Drewes</u> | G04-4-01 |
| 10:45 | Comparing Global and Dedicated Plate Angular Velocity Models: the cases of Arabia and South America <u>Rui Fernandes</u> , Machiel Bos, Abdulaziz Alothman, Hector Mora-Paz | G04-4-02 |

| | | |
|-------|--|----------|
| 11:00 | Modelling of Time-Varying Seasonal Signals in GNSS Time Series <u>Anna Klos</u> , Machiel Bos, Janusz Bogusz | G04-4-03 |
| 11:15 | Distribution of interplate coupling in the south of Central and Eastern Java from GPS observation <u>Irwan Meilano</u> , Endra Gunawan, Dina Sarsito, Rahma Hanifa, Bambang Setyadji, Hasanuddin Abidin, Susilo Susilo | G04-4-04 |
| 11:30 | Seismo-geodetic Behavior of Basic Tectonic Elements in Anatolian Region and Surroundings <u>Haluk Ozener</u> , Asli Dogru, Bahadir Aktug, Soner Ozdemir | G04-4-05 |
| 11:45 | Advanced analysis of GRACE and GNSS data for Earth's response to seasonal and decadal loads <u>Paoline Prevost</u> , Luce Fleitout, Eric Calais, Toni Vandam, Kristel Chanard, Michael Ghil | G04-4-06 |

Identifying the land subsidence attributed to the natural gas mining in GNSS time series in Japanese actively crustal deformed area
Takuya Harada, Tomochika Tokunaga, Seiichi Shimada

G04-P-07

IAG Positioning and Applications

G05. Multi-signal positioning: Theory and applications

Session: **G04-P**
Type: Poster
Date: Tuesday, August 1/ Wednesday, August 2, 2017
Time: 15:30 - 16:30
Room: Shinsho Hall

| Title | Program No. |
|---|-------------|
| Length of the Day estimated from DORIS observations <u>Petr Stepanek</u> , Michal Buday, Vratislav Filler, Urs Hugentobler | G04-P-01 |
| Revisiting the indirect effect of the triaxiality on the polar motion libration of the non-rigid Earth <u>Alberto Escapa</u> , Jose Manuel Ferrandiz, Juan Getino, Tomas Baenas | G04-P-02 |
| The influence of mantle anelasticity on load response functions Volker Klemann, Robert Dill, <u>Maik Thomas</u> | G04-P-03 |
| Time-lapse relative gravity measurements between surface and underground stations for studying the local hydrology <u>Jaakko Mäkinen</u> , Ivars Liepins, Viesturs Sprogis, Janis Sakne, Kalvis Salmins, Janis Kaminskis, Reinhard Falk, David Stizza | G04-P-04 |
| GPS Observation to Identify Bali Back Arc Thrusting <u>Dina A. Sarsito</u> , Sri Hidayati, Susilo Susilo, Cecep Sulaiman, Irwan Meilano, Endra Gunawan, Estu Kriswati, Hasanuddin Z. Abidin, Heri Andreas | G04-P-05 |
| Earth rotation in sight of climate modulations Leonid Zotov, Nikolay Sidorenkov, Christian Bizouard, <u>Alexey Lyubushin</u> | G04-P-06 |

Session: **G05-1**
Session title: Indoor and outdoor navigation
Type: Oral
Date: Friday, August 4, 2017
Time: 08:30 - 10:00
Room: Room 504+505
Chairs: Vassilis Gikas (National Technical University of Athens)
Jinling Wang (University of New South Wales)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Constrained Differential Wi-Fi and UWB Measurements for Indoor Cooperative User Localization <u>Guenther Retscher</u> , Hannes Hofer, Allison Kealy, Vassilis Gikas, Andreas Ettlinger, Franz Obex | G05-1-01 |
| 08:45 | Static and kinematic experimental evaluation of a UWB ranging system for positioning applications Harris Perakis, <u>Vassilis Gikas</u> , Panos Sotiriou | G05-1-02 |
| 09:00 | The Database Referenced Navigation Algorithms : A new attempt at combining geophysical DBs and navigation algorithms <u>Jisun Lee</u> , Jay Hyoun Kwon | G05-1-03 |
| 09:15 | The Estimation of Error Models of MEMS-IMU and its application to develop the GNSS/MEMS-IMU/ On-board Vehicle sensor based positioning System <u>Yong Lee</u> , Jay Hyoun Kwon | G05-1-04 |
| 09:30 | Global GNSS processing based on the raw observation approach <u>Sebastian Strasser</u> , Norbert Zehentner, Torsten Mayer-Guerr | G05-1-05 |
| 09:45 | Improving GNSS RTK and kinematic PPP positioning through extended Kalman filter tuning Marco Aurelio Moraes de Mendonca, <u>Marcelo C. dos Santos</u> | G05-1-06 |

Session: **G05-2**
 Session title: Single- and Multi-GNSS
 Type: Oral
 Date: Friday, August 4, 2017
 Time: 10:30 - 12:00
 Room: Room 504+505
 Chairs: Pawel Wielgosz (University of Warmia and Mazury)
 Marcelo Santos (University of New Brunswick)

| Time | Title | Program No. |
|-------|--|-------------|
| 10:30 | Impact of Multi-GNSS analysis on precise geodetic applications <u>Elmar Brockmann</u> , Daniel Ineichen, Simon Lutz, Stefan Schaer | G05-2-01 |
| 10:45 | Assessment of PPP quality for high speed kinematic application <u>Joao Francisco Galera Monico</u> , Haroldo Antonio Marques, Italo Tsuchiya, Mauricio Cardoso | G05-2-02 |
| 11:00 | Statistical Analysis of Multi-GNSS Inter-System Biases for Precise Point Positioning Ambiguity Resolution Shuyang Cheng, <u>Jinling Wang</u> | G05-2-03 |
| 11:15 | Quality of GPS, GLONASS, Galileo and BeiDou real-time orbits and clocks <u>Kamil Kazmierski</u> , Krzysztof Sosnica, Tomasz Hadas | G05-2-04 |
| 11:30 | Satellite Phase Bias Estimation with High-Dimensional Ambiguity Fixing Patrick Henkel, <u>Dimitrios Psychas</u> , Christoph Guenther | G05-2-05 |
| 11:45 | High-rate RTK and PPP for precise dynamic displacements determination <u>Jacek Paziewski</u> , Rafal Sieradzki, Radoslaw Baryla, Pawel Wielgosz | G05-2-06 |

Session: **G05-3**
 Session title: Positioning applications
 Type: Oral
 Date: Friday, August 4, 2017
 Time: 13:30 - 15:00
 Room: Room 504+505
 Chairs: Allison Kealy (University of Melbourne)
 Marcelo Santos (University of New Brunswick)

| Time | Title | Program No. |
|-------|--|-------------|
| 13:30 | Higher Order Ionospheric modelling campaigns for precise GNSS applications <u>Tomasz Hadas</u> , Jan Kaplon, Anna Krypiak-Gregorczyk, Manuel Hernandez-Pajares, Pawel Wielgosz, Alberto Garcia-Rigo, Jacek Paziewski, Kamil Kazmierski, Jaroslaw Bosy, Krzysztof Sosnica, Dawid Kwasniak, Marcin Pucilowski, Robert Szyszko, Raul Orus Perez | G05-3-01 |
| 13:45 | Crustal deformation in response to the changing climate <u>Shimon Wdowinski</u> , Paulo Setti, Tonie van Dam | G05-3-02 |

14:00 **Variometric approach for displacement analysis using Galileo data** G05-3-03
 Francesca Tesolin, Alfonso Vitti, Augusto Mazzoni, Mattia Giovanni Crespi

14:15 **Investigation of RUFRRIS as an alternative method to levelling** G05-3-04
M. Amin Alizadeh-Khameneh, Anna B. O. Jensen, Milan Horemuz, Johan Vium Andersson

Session: **G05-P**
 Type: Poster
 Date: Thursday, August 3/ Friday, August 4, 2017
 Time: 15:30 - 16:30 / 15:00 - 16:00
 Room: Shinsho Hall

| Title | Program No. |
|---|-------------|
| Assessment of GNSS and map integration for lane-level applications in the scope of Intelligent Transportation Location Based Services (ITLBS) Emerson Cavalheri, <u>Marcelo Santos</u> | G05-P-01 |
| Evaluation of digital surface models created from LiDAR and optical sensor data collected with unmanned aerial systems <u>Andrzej Borkowski</u> , Grzegorz Jozkow, Agata Walicka, Mateusz Karpina, Przemyslaw Tymkow | G05-P-02 |
| Improving low-cost GNSS navigation in urban areas using multi-constellation receivers and integrating a Kinect device Diana Pagliari, Carlo Iapige De Gaetani, Eugenio Realini, Mirko Reguzzoni, Lorenzo Rossi, Livio Pinto, <u>Riccardo Barzaghi</u> | G05-P-03 |
| Multi GNSS attitude estimation of UAVs during landing <u>Marton Farkas</u> , Szabolcs Rozsa, Balint Vanek | G05-P-04 |
| Short-Term Prediction of IGS Real Time Service Data for Continuous GNSS Positioning <u>Jeongrae Kim</u> , Mingyu Kim | G05-P-05 |
| Multiplicative random error models: Parameter estimation and error analysis <u>Yun Shi</u> , Jing Zhang, Peng Chen, Jie Lv, Chao Li | G05-P-06 |
| MINIMUM MEAN SQUARE ERROR ADJUSTMENT, Part 2: The Empirical BLE and the reproBLE for multivariate positioning Burkhard Schaffrin, <u>Peiliang Xu</u> | G05-P-07 |

G06. Geodetic remote sensing

Session: **G06-1**
 Session title: Troposphere monitoring I
 Type: Oral
 Date: Tuesday, August 1, 2017
 Time: 13:30 - 15:00
 Room: Room 504+505
 Chairs: Yoshinori Shoji (Meteorological Research Institute Tsukuba)
 Robert Heinkelmann (German Research Centre for Geosciences Potsdam GFZ)

| Time | Title | Program No. |
|-------|--|---------------------|
| 13:30 | GNSS Remote Sensing at GFZ: Overview and Recent Results Jens Wickert, Fadwa AlShawaf, Christina Arras, Milad Asgarimehr, Galina Dick, Stefan Heise, Kristine Larson, XingXing Li, Cuixian Lu, Markus Ramatschi, Maximilian Semmling, Torsten Schmidt, Tzvetan Simeonov, Sibylle Vey, Florian Zus, Harald Schuh | G06-1-01 invited |
| 13:45 | A new baseline processing strategy for GNSS meteorology Katarzyna Stepniak, Olivier Bock, Pawel Wielgosz | G06-1-02 |
| 14:00 | Impact of advanced ZTD estimate method – Separation from site coordinates estimation – Seiichi Shimada, Shingo Shimizu, Kazuhisa Tsuboki, Yusuke Morimoto | G06-1-03 |
| 14:15 | Main achievements of the Working Group 1 “Advanced GNSS Processing Techniques” of the COST Action ES1206: GNSS for Severe Weather and Climate (GNSS4SWEC) Galina Dick, Jan Dousa, Michal Kacmarik, Pavel Vaclavovic, Eric Pottiaux, Florian Zus, Hugues Brenot, Jan Kaplon, Gregor Moeller, Rosa Pacione, Andrea Stuerze, Norman Teferle, Laurent Morel, Pawel Hordyniec | G06-1-04 |
| 14:30 | Heterogeneity of residuals from GNSS and ray-traced tropospheric delays as an indicator of hydrometeors Pawel Hordyniec, Witold Rohm, Jan Kaplon | G06-1-05 |
| 14:45 | Analysis of systematic effects in slant total delay estimation with PPP Jan Kaplon, Pawel Hordyniec, Witold Rohm | G06-1-06 |

Session: **G06-2**
 Session title: Troposphere monitoring II
 Type: Oral
 Date: Tuesday, August 1, 2017
 Time: 16:30 - 18:00
 Room: Room 504+505
 Chairs: Tomasz Hadas (Wroclaw University of Environmental and Life Sciences)
 Francesco Vespe (Agenzia Spaziale Italiana)

| Time | Title | Program No. |
|-------|--|-------------|
| 16:30 | High-resolution troposphere models based on Numerical Weather Prediction for GNSS real-time Precise Point Positioning Karina Wilgan, Tomasz Hadas, Pawel Hordyniec, Jaroslaw Bosy | G06-2-01 |
| 16:45 | Optimum stochastic modeling for GNSS tropospheric delay estimation in real-time Tomasz Hadas, Felix Norman Teferle, Kamil Kazmierski, Pawel Hordyniec, Jaroslaw Bosy | G06-2-02 |
| 17:00 | Impact assessment of regional versus global Numerical Weather Model-derived tropospheric corrections for GPS and VLBI Thaleia Nikolaidou, Felipe Nievinski, Kyriakos Balidakis, Marcelo Santos | G06-2-03 |
| 17:15 | A Study of Severe Storm Monitoring and Prediction using High Spatio-temporal GNSS Water Vapor Information Retrieved with RTKLIB and MADOCA Yoshinori Shoji, Kazutoshi Sato, Masanori Yabuki, Toshitaka Tsuda | G06-2-04 |
| 17:30 | Integrated water vapor trends from VLBI analysis, and their validation with GNSS and numerical weather models Kyriakos Balidakis, Tobias Nilsson, Robert Heinkelmann, Susanne Glaser, Florian Zus, Zhiguo Deng, Harald Schuh | G06-2-05 |
| 17:45 | Tropospheric ties for inter-technique comparisons and combinations Jan Dousa, Robert Heinkelmann, Kyriakos Balidakis | G06-2-06 |

Session: **G06-3**
 Session title: Ionosphere and space weather I
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 08:30 - 10:00
 Room: Room 504+505
 Chairs: Lung-Chih Tsai (National Central University)
 Michael Schmidt (Technical University of Munich)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Detection of both icecap and crustal deformation associated with the 2014-2015 Bardarbunga rifting episode Yuji Himematsu, Masato Furuya | G06-3-01 |

| | | |
|-------|--|---------------------|
| 08:45 | Taiwan/TriG Radio Occultation Process System (TROPs) <u>Cheng-Yung Huang</u> , Wen-Hao Yeh, Tzu-Pang Tseng, Linton Chen, Jing-Mei Wu, Hsiu-Wen Li | G06-3-02 |
| 09:00 | Global and regional high resolution VTEC Representations using B-Splines and Kalman filtering <u>Michael Schmidt</u> , Andreas Goss, Eren Erdogan, Denise Dettmering, Florian Seitz, Klaus Boerger, Sylvia Brandert, Barbara Goerres, Wilhelm Kersten, Volker Bothmer, Johannes Hinrichs, Niclas Mrotzek | G06-3-03 |
| 09:15 | The optimal regularization (alpha-weighted BLE via A-optimal design) and its application in GNSS-based ionospheric tomography <u>Jianqing Cai</u> , Kun Qian, Nico Sneeuw, Cheng Wang, Jiexian Wang | G06-3-04 |
| 09:30 | Contributions to real time and near real time Ionosphere Monitoring by IAG's RTIM-WG <u>Alberto Garcia-Rigo</u> , David Roma-Dollase, Manuel Hernandez-Pajares, Zishen Li, Michael Terkildsen, German Olivares, Reza Ghoddousi-Fard, Denise Dettmering, Eren Erdogan, Haris Haralambous, Yannick Beniguel, Jens Berdermann, Martin Kriegel, Anna Krypiak-Gregorczyk, Tamara Gulyaeva, Attila Komjathy, Panagiotis Vergados, Joachim Feltens, Rene Zandbergen, Tim Fuller-Rowell, David Altadill, Nicolas Bergeot, Andrzej Krankowski, Loukis Agrotis, Ivan Galkin, Raul Orus-Perez, Estefania Blanch | G06-3-05 invited |

Session: **G06-4**
 Session title: Ionosphere and space weather II
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 10:30 - 12:00
 Room: Room 504+505
 Chairs: Alberto Gracia-Rigo (Technical University of Catalonia)
 Jianqing Cai (University of Stuttgart)

| Time | Title | Program No. |
|-------|---|-------------|
| 10:30 | S4 index observations and global morphology of ionospheric scintillations using FS3/COSMIC GPS radio occultation data <u>Lung-Chih Tsai</u> , Shin-Yi Su, Chao-Han Liu | G06-4-01 |
| 11:00 | 3-D Tomography of Daytime Mid-latitude Sporadic-E from GNSS Data <u>Ihsan Naufal Muafiry</u> , Kosuke Heki, Jun Maeda | G06-4-02 |
| 11:15 | Dispersive and Non-dispersive Components in the L-band InSAR Data Associated with Sporadic-E and Heavy Rain Episodes <u>Masato Furuya</u> , Takato Suzuki, Youhei Kinoshita | G06-4-03 |

| | | |
|-------|---|----------|
| 11:30 | Remote sensing of ionospheric TEC using GNSS observations in relation to space weather events and seismic activity in Bosnia and Herzegovina <u>Randa Natras</u> , Medzida Mulic | G06-4-04 |
| 11:45 | Assessment and comparisons of ionospheric vertical total electron content products <u>Michael Schmidt</u> , Alberto Garcia-Rigo, Eren Erdogan, Andreas Goss, David Roma-Dollase, Manuel Hernandez-Pajares | G06-4-05 |

Session: **G06-5**
 Session title: GNSS reflectometry
 Type: Oral
 Date: Wednesday, August 2, 2017
 Time: 13:30 - 15:00
 Room: Room 504+505
 Chairs: Jens Wickert (German Research Centre for Geosciences GFZ)
 Felipe Geremia-Nievinski (Federal University of Rio Grande do Sul)

| Time | Title | Program No. |
|-------|--|---------------------|
| 13:30 | GNSS-Reflectometry Based Sea Level and Water Level Studies <u>C. K. Shum</u> , Jian Sun, Jeonghwan Park, Joel Johnson, Yuchan Yi, Lifeng Bao, Stephane Calmant, Valerie Ballu, Chungyen Kuo, Tilo Schone, Jens Wickert | G06-5-01 |
| 13:45 | IAG/GGOS inter-comparison campaign on SNR-based GNSS reflectometry for sea level monitoring Felipe Geremia-Nievinski, Thomas Hobiger, Karen Boniface, Ruediger Haas, Wei Liu, Nicolas Roussel, Joakim Strandberg, Sajad Tabibi, Sibylle Vey, <u>Jens Wickert</u> , Simon Williams | G06-5-02 invited |
| 14:00 | Sea level retrieval based on fitting model of GNSS SNR observations <u>Wei Liu</u> , Yuan Hu, Maximilian Semmling, Jens Wickert | G06-5-03 |
| 14:15 | Observation of sea surface heights from moving ships based on analysis of GNSS-SNR data <u>Joerg Reinking</u> | G06-5-04 |
| 14:30 | Wind Direction Retrieval in Airborne Experiments of a GNSS-R Receiver <u>Sheng-Hsiung Ma</u> , Jyh-Ching Juang | G06-5-05 |
| 14:45 | GNSS Reflectometry onboard the International Space Station with GEROS-ISS: Review of activities and current status <u>Jens Wickert</u> , Estel Cardellach, Manuel Martin-Neira, Ole Andersen, Jorge Bandeiras, Laurent Bertino, Adriano Camps, Jan Saynisch, Nuno Catarinho, Christine Gommenginger, C. K. Shum, Cinzia Zuffada, Giuseppe Foti, Jiping Xie, Per Hoeg, Adrian Jaeggi, Michael Kern, Tony Lee, Maximilian Semmling, Hyuk Park, Nazzareno Pierdicca | G06-5-06 |

Session: **G06-P**
 Type: Poster
 Date: Tuesday, August 1/ Wednesday, August 2, 2017
 Time: 15:30 - 16:30
 Room: Shinsho Hall

| Title | Program No. |
|--|-------------|
| Assessing Precise Point Positioning Derived Zenith Total Delays Using the NIGNET Omeiza Mayaki, Marcelo Santos , Thaleia Nikolaidou, Chukwuma Okolie | G06-P-01 |
| Calibration of empirical thermospheric models by using laser observations to near-Earth orbiting spherical satellites Michael Schmidt , Mathis Blossfeld, Chao Xiong, Hermann Luehr | G06-P-02 |
| Impact of heat island effect on rainfall patterns under global warming: case study of Taipei City Ta-Kang Yeh , Jing-Shan Hong, Kuan-Chen Su, Shih-Liang Chan | G06-P-03 |
| Ray-traced radio occultation profiles during tropical cyclones Pawel Hordyniec , Cheng-Yung Huang, Witold Rohm | G06-P-04 |
| Regional Precipitation Prediction Based On Tropospheric Gradients and Delay Time Series Janina Boisits, Gregor Moeller, Christoph Wittmann, Robert Weber, Johannes Boehm | G06-P-05 |
| Comparison of GNSS-R Ocean Surface Wind Speed Estimates from TDS-1 against Airborne Scatterometer Data in the Baltic Sea Gerhard Ressler, Josep Rosello, Tania Casal, Michael Kern , Martin Unwin, Philip Jales, Christine Gommenginger, Giuseppe Foti, Juha Kainulainen | G06-P-06 |
| Ionospheric parameters determination using integrated space geodetic data (case study: Iran) Saeed Zare, Mahdi Alizadeh, Michael Schmidt | G06-P-07 |
| Ionospheric scintillation detection based on GPS observations, a case study over Iran Sahar Sobhkhiz, Mahdi Alizadeh, Michael Schmidt | G06-P-08 |

IAG Joint

G07. Global Geodetic Observing System (GGOS) and Earth monitoring services

Session: **G07-1**
 Session title: GGOS activities and focus on gravity
 Type: Oral
 Date: Thursday, August 3, 2017
 Time: 13:30 - 15:00
 Room: Room 502
 Chairs: Richard Gross (Jet Propulsion Laboratory,
California Institute of Technology)
Toshimichi Otsubo (Hitotsubashi University)

| Time | Title | Program No. |
|-------|--|---------------------|
| 13:30 | The Contribution of Geodetic Observations to Science and Society Richard Gross | G07-1-01 |
| 13:45 | The GGOS Bureau of Networks and Observations: Activities and Plans Michael R. Pearlmaan , Chopo Ma, Ruth Neilan, Carey E. Noll, Erricos Pavlis, Jerome Saunier, Tilo Schoene, Riccardo Barzaghi, Daniela Thaller, Sten Bergstrand, Juergen Mueller | G07-1-02 invited |
| 14:00 | GGOS Bureau of Products and Standards: Recent activities and future plans Dettef Angermann , Thomas Gruber, Michael Gerstl, Urs Hugentobler, Laura Sanchez, Robert Heinkelmann, Peter Steigenberger | G07-1-03 |
| 14:15 | Space Geodetic Activities and GGOS Working Group in Japan Toshimichi Otsubo , Basara Miyahara, Ryoji Kawabata, Yuichi Aoyama, Yuichi Fukuda, Yusuke Yokota, Hiromi Yamao, Shigaru Matsuzaka | G07-1-04 |
| 14:30 | Observing the Earth's gravity field as integral component of the Global Geodetic Observing System Roland Pail | G07-1-05 invited |
| 14:45 | A first approximation to the International Height Reference Frame (IHRF) Laura Sanchez , Heiner Denker, Denizar Blitzkow, Roland Pail, Jianliang Huang, Daniel Roman, Matt Amos, Johannes Ihde, Riccardo Barzaghi, Michael Sideris, Ilya Oshchepkov, Ana C. O. C. Matos, Diego Pinon, David Avalos, Silvio R.C. Freitas | G07-1-06 invited |

Session: **G07-2**
 Session title: GGOS focus on reference frames
 Type: Oral
 Date: Thursday, August 3, 2017
 Time: 16:30 - 18:00
 Room: Room 502
 Chairs: Detlef Angermann (Technical University of Munich)
 Richard Gross (Jet Propulsion Laboratory,
 California Institute of Technology)

| Time | Title | Program No. |
|-------|--|---------------------|
| 16:30 | Activities of the UN GGIM on the Global Geodetic Reference Frame Gary Johnston, Laila Lovhoiden, Anne Jorgensen, <u>John Dawson</u> | G07-2-01 invited |
| 16:45 | Roadmap to implement the UN resolution on Global Geodetic Reference Frame in Europe <u>Markku Poutanen</u> | G07-2-02 |
| 17:00 | Recent Activities of the GGOS Standing Committee on Performance Simulations and Architectural Trade-Offs (PLATO) <u>Benjamin Maennel</u> , Daniela Thaller, Markus Rothacher, Johannes Boehm, Juergen Mueller, Mathis Blossfeld, Alexander Kehm, Susanne Glaser | G07-2-03 |
| 17:15 | Simulated multi-technique TRFs for GGOS with focus on enhanced SLR and VLBI ground network architecture <u>Susanne Glaser</u> , Rolf Koenig, Karl-Hans Neumayer, Tobias Nilsson, Robert Heinkelmann, Harald Schuh, Frank Flechtner | G07-2-04 |
| 17:30 | Effective expansion of satellite laser ranging network for improving geodetic products and satellite orbits <u>Toshimichi Otsubo</u> , Koji Matsuo, Yuichi Aoyama, Keiko Yamamoto, Thomas Hobiger, Toshihiro Kubo-oka, Mamoru Sekido, Urs Hugentobler, Rolf Koenig | G07-2-05 |
| 17:45 | Benefits for GGOS from SLR tracking of GLONASS, Galileo, BeiDou, and QZSS satellites <u>Krzysztof Sosnica</u> , Grzegorz Bury, Radoslaw Zajdel, Kamil Kazmierski, Mateusz Drozdowski, Tomasz Hadas | G07-2-06 |

Session: **G07-3**
 Session title: GGOS focus on geohazards and sea level
 Type: Oral
 Date: Friday, August 4, 2017
 Time: 08:30 - 10:00
 Room: Room 502
 Chairs: Richard Gross (Jet Propulsion Laboratory,
 California Institute of Technology)
 Toshimichi Otsubo (Hitotsubashi University)

| Time | Title | Program No. |
|-------|--|-------------|
| 08:30 | Implementing the GGOS Decadal Vision for Geohazards Monitoring <u>John LaBrecque</u> | G07-3-01 |

08:45 **Global Navigation Satellite System Tsunami Early Warning Project**
Gerald Bawden, John Rundle, John LaBrecque
 G07-3-02 |

09:00 **GNSS Buoy Array in the Ocean for a Synthetic Geohazards Monitoring System**
Teruyuki Kato, Yukihiko Terada, Keiichi Tadokoro, Akira Futamura, Morio Toyoshima, Shin-Ichi Yamamoto, Mamoru Ishii, Takuya Tsugawa, Michi Nishioka, Kenichi Takizawa, Yoshinori Shoji, Tadahihiro Iwasaki, Naoyuki Koshikawa
 G07-3-03 |

09:15 **Contemporary Geocentric Sea-Level Rise Estimates and Regional Sea-Level Projections**
Tingyi Yang, C. K. Shum, Chungyen Kuo, Yuanyuan Jia, Junyi Guo, Stephane Calmant, Kuo-Hsin Tseng, Tilo Schone
 G07-3-04 |

09:30 **Global and regional sea level budgets from joint analysis of space gravimetry and altimetry data sets**
Bernd Uebbing, Christina Lueck, Roelof Rietbroek, Juergen Kusche G07-3-05 |

09:45 **The International DORIS Service: Current Status and Future Plans**
Laurent Soudarin, Pascale Ferrage, Jerome Saunier, Frank Lemoine G07-3-06 |

Session: **G07-4**
 Session title: GGOS observations: GNSS and co-locations
 Type: Oral
 Date: Friday, August 4, 2017
 Time: 10:30 - 12:00
 Room: Room 502
 Chairs: Detlef Angermann (Technical University of Munich)
 Richard Gross (Jet Propulsion Laboratory,
 California Institute of Technology)

| Time | Title | Program No. |
|-------|---|---------------------|
| 10:30 | Activities of the Wettzell station in Germany <u>Daniela Thaller</u> , Torben Schueler, Thomas Kluegel, Johann Eckl, Alexander Neidhardt, Christian Ploetz, Gerhard Kronschnabl, Hartmut Wziontek, Jan Kodet, Ulrich Schreiber | G07-4-01 invited |
| 10:45 | Geodetic activities at Syowa Station, East Antarctica <u>Yuichi Aoyama</u> , Koichiro Doi, Yoichi Fukuda, Hiroshi Ikeda, Hideaki Hayakawa, Yoshihiro Fukuzaki, Mamoru Sekido, Toshimichi Otsubo, Yoshifumi Nogi, Kazuo Shibuya | G07-4-02 invited |
| 11:00 | Development of New Analysis Strategy for GNSS Observation Network in Japan <u>Satoshi Abe</u> , Naofumi Takamatsu, Norihiko Ishikawa, Kazunori Yamaguchi, Yuki Kamakari, Satoshi Kawamoto, Yohei Hiyama, Yuki Hatanaka, Hiromichi Tsuji | G07-4-03 |

| | | |
|-------|--|----------|
| 11:15 | Performance of various homogenization tools on a synthetic benchmark dataset of GPS and ERA-interim IWV differences <u>Anna Klos</u> , Roeland Van Malderen, Eric Pottiaux, Olivier Bock, Janusz Bogusz, Barbara Chimani, Michal Elias, Marta Gruszczynska, Jose Guijarro, Selma Zengin Kazanci, Tong Ning | G07-4-04 |
| 11:30 | A comparison of precipitable water vapor retrieved with novel ground-based microwave radiometer, GPS and analysis data in Tsukuba during a cold front passage <u>Ryuichi Ichikawa</u> , Hiroshi Takiguchi, Taketo Nagasaki, Osamu Tajima, Kentaro Araki | G07-4-05 |
| 11:45 | Solar radiation pressure acceleration acting on geodetic satellites: precise orbit determination vs surface materials <u>Akihisa Hattori</u> , Toshimichi Otsubo | G07-4-06 |

Session: **G07-5**
 Session title: GGOS observations: VLBI
 Type: Oral
 Date: Friday, August 4, 2017
 Time: 13:30 - 15:00
 Room: Room 502
 Chairs: Toshimichi Otsubo (Hitotsubashi University)
 Detlef Angermann (Technical University of Munich)

| Time | Title | Program No. |
|-------|--|-------------|
| 13:30 | The VLBI Global Observing System and its link to GGOS <u>Axel Nothnagel</u> , Dirk Behrend, Hayo Hase, Arthur Niell, Bill Petrachenko, Gino Tuccari | G07-5-01 |
| 13:45 | VGOS development for Ishioka 13-m antenna <u>Takahiro Wakasugi</u> , Michiko Umei, Tomoo Toyoda, Masayoshi Ishimoto, Ryoji Kawabata, Basara Miyahara | G07-5-02 |
| 14:00 | Broadband VLBI System GALA-V <u>Mamoru Sekido</u> , Kazuhiro Takefuji, Hideki Ujihara, Tetsuro Kondo, Masanori Tsutsumi, Yuka Miyauchi, Eiji Kawai, Hiroshi Takiguchi, Ryuichi Ichikawa, Yasuhiro Koyama, Kennichi Watabe, Tomonari Suzuyama, Ryoji Kawabata, Yoshihiro Fukuzaki, Masayoshi Ishimoto, Takahiro Wakasugi, Jun'ichi Komuro, Kenjiro Terada, Kunitaka Namba, Rumi Takahashi, Tetsuro Aoki | G07-5-03 |
| 14:30 | Strategies to improve precision, accuracy, and latency of current and future VLBI Intensive sessions <u>Niko Kareinen</u> , Thomas Hobiger, Ruediger Haas, Grzegorz Klopotek | G07-5-04 |
| 14:45 | Error budget analysis in Geodetic VLBI <u>Minghui Xu</u> , James A. Anderson, Harald Schuh, Guangli Wang | G07-5-05 |

Session: **G07-P**
 Type: Poster
 Date: Thursday, August 3/ Friday, August 4, 2017
 Time: 15:30 - 16:30 / 15:00 - 16:00
 Room: Shinsho Hall

| Title | Program No. |
|---|-------------|
| Status of the ESA Earth Explorer missions Mark Drinkwater, Pierluigi Silvestrin, Roger Haagmans, Michael Rast, <u>Michael Kern</u> | G07-P-01 |
| The ISO Geodetic Registry and Related Standards Michael Craymer, <u>Larry Hothem</u> | G07-P-02 |
| New design and facilities for the International Database for Absolute Gravity Measurements (AGrav): A support for the Establishment of a new Global Absolute Gravity Reference System <u>Hartmut Wziontek</u> , Reinhard Falk, Sylvain Bonvalot, Axel Ruelke | G07-P-03 |
| IGFS geoportal development for gravity, geoid, GGM and DEM data <u>Georgios S. Vergos</u> , Vassilios N. Grigoriadis, Riccardo Barzaghi, Daniela Carrion, Sylvain Bonvalot, Franz Barthelmes, Mirko Reguzzoni, Hartmut Wziontek, Kevin M. Kelly | G07-P-04 |
| IGFS metadata for gravity and geoid. Structure, build-up and application module <u>Georgios S. Vergos</u> , Vassilios N. Grigoriadis, Riccardo Barzaghi, Daniela Carrion | G07-P-05 |
| The Data Base of the International Geodynamics and Earth Tide Service (IGETS) Christian Voigt, Christoph Foerste, <u>Hartmut Wziontek</u> , David Crossley, Bruno Meurers, Vojtech Palinkas, Jacques Hinderer, Jean-Paul Boy, Jean-Pierre Barriot, Heping Sun | G07-P-06 |
| Effects of tidal perturbation on the geopotential for application of precise clock comparison to long-distance leveling: Case study of Japan as coastal areas <u>Yuki Kuroishi</u> | G07-P-07 |
| Activities of the Asia-Oceania VLBI Group for Geodesy and Astrometry (AOV) Ryoji Kawabata, Takahiro Wakasugi, <u>Michiko Umei</u> , Jim Lovell | G07-P-08 |
| Geodetic Observations in Mizusawa VLBI Observatory <u>Yoshiaki Tamura</u> , Takaaki Jike, Seiji Manabe | G07-P-09 |
| Development of Wideband Antennas <u>Hideki Ujihara</u> , Kazuhiro Takefuji, Mamoru Sekido, Ryuichi Ichikawa | G07-P-10 |
| Contribution for international geodetic frame of SLR observation at the Shimosato Hydrographic Observatory <u>Hiroko Fukura</u> , Yusuke Yokota | G07-P-11 |