

Scientific program of the Second VarSITI General Symposium (VarSITI-2017)

Oral Sessions

Meeting place: Marriot Courtyard City Center, Irkutsk
July 10, 2017 – July 15, 2017

Monday, July 10

Inaugural session

Chair: K. Shiokawa and Franz-Josef Lübken

8:00:00	9:00:00	REGISTRATION
9:00:00	9:10:00	WELCOME REMARK <i>Nat Gopalswamy, SCOSTEP President</i>
9:10:00	9:20:00	WELCOME REMARK <i>Geliy Zherebtsov, SCOSTEP Russian Adherent Representative</i>
9:20:00	9:30:00	WELCOME REMARK <i>Andrey Medvedev, Director of ISTP SB RAS</i>
9:30:00	9:50:00	CURRENT STATUS OF SCOSTEP/VARSITI - VARIABILITY OF THE SUN AND ITS TERRESTRIAL IMPACT (2014-2018) <i>Kazuo Shiokawa, Katya Georgieva, VarSITI Co-Chairs</i>
9:50:00	10:40:00	SCOSTEP AWARD CEREMONY
10:40:00	11:00:00	COFFEE BREAK
11:00:00	12:00:00	SUNSPOT NUMBER SERIES REVISITED: WHERE ARE WE? <i>Ilya Usoskin (<u>keynote talk</u>)</i>

Session 2

Long-term variation of the sun, geomagnetic activity, and climate

12:00:00	12:30:00	SOLAR CYCLE PREDICTIONS AND PREDICTABILITY <i>Robert Harold Cameron (<u>invited</u>)</i>
12:30:00	14:00:00	LUNCH

Session 2

Long-term variation of the sun, geomagnetic activity, and climate (continuation)

Chair: Dibyendu Nandi

14:00:00	14:30:00	THE SUN'S POLAR-FIELD REVERSAL IN THE CURRENT CYCLE: THE EFFECTS OF NORTH-SOUTH ASYMMETRY OF SUNSPOT ACTIVITY <i>Alexander Mordvinov, Alexei Pevtsov (<u>invited</u>)</i>
14:30:00	15:00:00	LONG TERM VARIATIONS OF THE SOLAR MAGNETIC FIELDS <i>Aimee Norton (<u>invited</u>)</i>
15:00:00	15:20:00	SPACE CLIMATE IN THE HELIOSPHERE-MAGNETOSPHERE ENVIRONMENT. CONSEQUENCES IN SOLAR CYCLE 24 <i>Venera Dobrica, Crisan Demetrescu, Cristiana Stefan</i>
15:20:00	15:50:00	CONTRIBUTION OF TSI, SOLAR UV AND ENERGETIC PARTICLES TO EARLY 20TH CENTURY CLIMATE AND OZONE LAYER EVOLUTION <i>Eugene Rozanov (<u>invited</u>)</i>
15:50:00	16:20:00	COFFEE BREAK

Session 2

Long-term variation of the sun, geomagnetic activity, and climate (continuation)

Chair: Eugene Rozanov

16:20:00	16:40:00	VARIATIONS OF THE SOLAR SPECTRUM IRRADIANCE IN THE VISIBLE AS OBSERVED WITH SOLAR/SOLSPEC DURING CYCLE 24 <i>Abdanour Irbah, Luc Damé, Slimane Bekki, Mustapha Meftah, David Bolsée, Nuno Pereira</i>
16:40:00	17:00:00	SOLAR VARIABILITY MANIFESTATIONS IN WEATHER AND CLIMATIC CHARACTERISTICS <i>Geliy Zharebtsov, Vladimir Kovalenko, Sergey Molodykh, Kiril Kirichenko</i>
17:00:00	17:20:00	ON NON-UNIVERSALITY OF SOLAR-TERRESTRIAL CONNECTIONS <i>Lev Aron Pustilnik</i>
17:20:00	17:50:00	IMPACT OF EPP AND GCRs ON ATMOSPHERIC ELECTRIC CIRCUIT AND CLIMATE <i>Irina Mironova (<u>invited</u>)</i>
17:50:00	18:10:00	SCIENTIFIC HIGHLIGHTS FROM ROMIC <i>Franz-Josef Lübken</i>
18:10:00	19:30:00	POSTER SESSIONS
19:30:00	22:00:00	WELCOME PARTY

Tuesday, July 11

Session 1

Solar and heliospheric drivers of earth-affecting events

Chair: Yuri Yermolaev

9:00:00	09:30:00	THE ORIGIN OF SOLAR FLARES AND CMES: ADVANCES AND CHALLENGES Larisa Kashapova (<u>invited</u>)
9:30:00	09:50:00	STUDY OF MAGNETIC STRUCTURE AND TRIGGER MECHANISM FOR SOLAR FLARE Johan Muhamad, Kanya Kusano, Satoshi Inoue, Daikou Shiota
9:50:00	10:10:00	WAVE DYNAMICS IN UMBRAL FLASHES Robert Sych, Wang Min, Zhong Liu
10:10:00	10:30:00	MINGANTU SPECTRAL RADIOHELIOGRAPH FOR SOLAR TERRESTRIAL CONNECTIONS Yihua Yan, Wei Wang, Fei Liu, Zhijun Chen, Lihong Geng, Linjie Chen
10:30:00	11:00:00	THE ORIGIN AND PROPAGATION OF SOLAR ENERGETIC PARTICLES AND THEIR IMPACT ON EARTH Silvia Dalla (<u>invited</u>)
11:00:00	11:30:00	<i>COFFEE BREAK</i>

Session 1
Solar and heliospheric drivers of earth-affecting events (continuation)
Chair: Larisa Kashapova

11:30:00	11:50:00	SXR SOLAR FLARES DURING MINIMUM OF SOLAR ACTIVITY, Magdalena Gryciuk, Marek Siarkowski, Janusz Sylwester, Szymon Gburek, Piotr Podgórski
11:50:00	12:10:00	DIAGNOSTICS OF SOLAR CORONAL PLASMAS WITH RAPIDLY PROPAGATING QUASI-PERIODIC WAVE TRAINS Valery Nakariakov
12:10:00	12:30:00	FLARING ENERGY RELEASE AND PARTICLE ACCELERATION IN THE LOWER SOLAR ATMOSPHERE Alexander Stepanov, Zaitsev Valery
12:30:00	14:00:00	<i>LUNCH</i>

Session 1
Solar and heliospheric drivers of earth-affecting events (continuation)
Chair:
Silvia Dalla

14:00:00	14:20:00	FLUENCE SPECTRA OF SMALL SEP EVENTS WITH METRIC TYPE II RADIO BURSTS Pertti Makela, Nat Gopalswamy, Sachiko Akiyama, Seiji Yashiro
14:20:00	14:50:00	INTERPLANETARY DRIVERS OF STRONG MAGNETIC STORMS Yuri I Yermolaev, Irina G. Lodkina, Michael Yermolaev, Maria Riazantseva <u>(invited)</u>
14:50:00	15:10:00	ON GEOEFFECTIVENESS OF CMES DURING SC24 Diana Besliu-Ionescu, Dana Camelia Talpeanu, Marilena Mierla, Georgeta Maris Muntean
15:10:00	15:30:00	TIME- AND SPATIME AND SPATIAL PATTERNS OF SOLAR VARIABILITY INFLUENCE ON THE EARTH'S CLIMATE Alexander Ruzmaikin, Joan Feynman
15:30:00	16:00:00	<i>COFFEE BREAK</i>

Session 3

Coupling between the Earth's atmosphere and space and its relation to quiet and active Sun Chair: Petra Koucka Knizova

16:00:00	16:30:00	STUDIES ON VERTICAL COUPLINGS BY GRAVITY WAVES OVER THE ANTARCTIC WITH THE GROUND-BASED OBSERVATIONS Takuji Nakamura, Takashi S. Matsuda, Masaru Kogure, Mitsumu K. Ejiri, Yoshihiro Tomikawa, Takaniroi Nishiyama, Masaki Tsutsumi <u>(invited)</u>
16:30:00	16:50:00	SOURCES OF THE IONOSPHERIC VARIABILITY OVER EUROPE IN WINTER TIME FROM THE IONOSONDE AND GPS/GLONASS DATA Boris Shpynev, Marina Chernigovskaya, Anna Yasyukevich, Anna Mylnikova, Petra Koucká Knížová, Daniel Kouba, Jens Mielich, Alexander Kozlovsky, Bruno Zolesi
16:50:00	17:10:00	SOLAR CYCLE IN UV AND ITS RESPONSE IN D-REGION (3D SIMULATIONS) Alexei Krivolutsky, Lidiya Cherepanova
17:10:00	17:30:00	IMPACT OF STRATOSPHERIC WARMINGS ON THE MLT COMPOSITION AND TEMPERATURE FROM SPECTROMETRIC OBSERVATIONS OF OH (6-2) AIRGLOW AT MID LATITUDES Irina Medvedeva, Anatoly Semenov
17:30:00	17:50:00	INTER-HEMISPHERIC FIELD ALIGNED CURRENT CHARACTERISATION IN THE AFRICAN SECTOR AND ITS RESPONSE TO A 2009 SUDDEN STRATOSPHERIC WARMING EVENT Oluwafisayo Paul Owolabi, Olawale Segun Bolaji, Jacob Olusegun Adeniyi, Elijah Oyedola Oyeyemi, Babatunde Akeem Rabiou, John Bosco Habarulema, Pierre Cilliers, Lee-Anne McKinnell

Wednesday, July 12

Session 3

Coupling between the Earth's atmosphere and space and its relation to quiet and active Sun (continuation)

Chair: Alexei Krivolutsky

9:00:00	09:20:00	STATISTICS OF IONOSPHERIC DISTURBANCES DURING SUDDEN STRATOSPHERIC WARMINGS OVER EASTERN SIBERIA Konstantin Ratovsky, Irina Medvedeva
9:20:00	09:50:00	INTERACTION OF SMALL-SCALE GRAVITY WAVES WITH THE DIURNAL TIDE FROM THE MESOSPHERE TO THE UPPER THERMOSPHERE Erdal Yigit, Alexander S. Medvedev (<u>invited</u>)
9:50:00	10:10:00	NUMERICAL MODELING OF NONLINEAR ACOUSTIC-GRAVITY WAVE PROPAGATION INTO THE UPPER ATMOSPHERE AT DIFFERENT LEVELS OF SOLAR ACTIVITY Nikolai Gavrilov, Sergej Kshevetskii, Andrej Koval
10:10:00	10:30:00	SINGULAR VALUE DECOMPOSITION BASED ANALYSIS ACTIVITY IN THE IONOSPHERE USING TOTAL ELECTRON CONTENT MAPS Cenk Toker, <u>Feza Arikan</u>
10:30:00	11:00:00	COFFEE BREAK

Session 4

Understanding the earth's space environment and its connection to space weather

Chair: Lakshmi Narayanan

11:00:00	11:30:00	EFFECT OF MAGNETIC STORMS ON THE DEVELOPMENT OF SCINTILLATION-PRODUCING IRREGULARITIES IN LOW LATITUDE IONOSPHERE Archana Bhattacharyya, Bharati Kakad, Padma Gurram, Samireddypalle Sripathi, Surendra Sunda (<u>invited</u>)
11:30:00	11:50:00	RECURRENT IONOSPHERIC STORMS: TEMPORAL AND SPATIAL SCALES Alexei Dmitriev
11:50:00	11:10:00	PC INDEX AS A PROXY OF THE SOLAR WIND ENERGY THAT ENTERED INTO THE MAGNETOSPHERE IN CASE OF MAGNETIC STORMS Oleg Troshichev, Dmitry Sormakov

12:10:00	12:30:00	PWING GROUND NETWORK OBSERVATION OF WAVES AND PARTICLES IN THE INNER MAGNETOSPHERE DURING THE FIRST ERG-GROUND CAMPAIGN Kazuo Shiokawa, * PWING TEAM
12:30:00	14:00:00	LUNCH

Session 4

Understanding the earth's space environment and its connection to space weather (continuation) Chair: Archana Bhattacharyya

14:00:00	14:20:00	ACCELERATION OF THE ELECTRONS TO THE RELATIVISTIC ENERGIES AT THE OUTER RADIATION BELT DURING MAGNETIC STORMS AND WITHOUT IT Vladimir Belakhovsky, Vjacheslav Pilipenko, Laura Simms, Mark Engebretson, Sergey Samsonov
14:20:00	14:20:00	SOLAR WIND DIAMAGNETIC STRUCTURES AS THE SOURCE OF SUBSTORM-LIKE EVENTS Vladimir Parkhomov, Natalya Borodkova, Victor Eselevich, Maxim Eselevich, Vitalii Chilikin, Alexei Dmitriev
14:40:00	15:00:00	ON THE ROLE OF PLASMA SHEET STATE IN THE MAGNETOSPHERIC PLASMA ACCELERATION, BY THE SOLAR WIND. Nikita Stepanov, Viktor Sergeev
15:00:00	15:20:00	ANALYTIC MODEL OF CHANGES IN THE MAGNETOPAUSE SHAPE AND WITH IMF AND SOLAR WIND PARAMETERS VARIATIONS Mikhail Verigin, Galina Kotova, Vladilen Bezrukikh
15:20:00	15:20:00	DYNAMICS AND FEATURES OF GEOMAGNETIC DISTURBANCE DURING MAGNETIC STORMS (BASED ON GROUND STATION NETWORK) Oksana Mandrikova, Igor Solovev , Sergey Khomutov, Dmitry Baishev, Kusumita Arora, Lingala Manjula, Phani
15:40:00	16:00:00	SHORT-TIME FORECASTING OF THE MID-LATITUDE TOTAL ELECTRON CONTENT WITH A MEDIAN MODEL AND A FOURIER TRANSFORMATION APPROACH Ronny Badeke, Claudia Borries
16:00:00	16:30:00	COFFEE BREAK

Session 4

Understanding the earth's space environment and its connection to space weather (continuation)

Chair: Kazuo Shiokawa

16:30:00	16:50:00	FORECASTING OF GEOEFFECTIVENESS AND COSMIC RAY MODULATION INDUCED BY COROTATING INTERACTION REGIONS Jaša Čalogović, Mateja Dumbović, Bojan Vršnak, Bernd Heber, Manuela Temmer, Astrid Veronig
16:50:00	17:10:00	FABRY-PEROT INTERFEROMETER KEO SCIENTIFIC ARINAE FOR AIRGLOW OBSERVATION IN THE EASTERN SIBERIA: FIRST RESULTS Roman Vasilyev, Alexandr Mikhalev, Irina Medvedeva, Geliy Zhrebtssov, Alexander Beletsky, Tatyana Syrenova

Session 5
Sun to Earth campaign event study

17:10:00	17:30:00	REALISTIC IONOSPHERE 3D NOWCAST BY HF SOUNDING FROM TOP AND BOTTOM I. A. Galkin and B. W. Reinisch
17:30:00	16:00:00	CHALLENGES IN UNDERSTANDING AND PREDICTING EARTH-AFFECTING CORONAL MASS EJECTIONS Nariaki Nitta, Tamitha Mulligan, Dave Webb (<u>invited</u>)

Thursday, July 13

Session 5
Sun to Earth campaign event study (continuation)
Chair: Shunrong Zhang

9:00:00	09:30:00	MULTI-INSTRUMENT ANALYSIS OF SOLAR ERUPTIVE EVENTS OBSERVED BY THE SIBERIAN RADIOHELIOGRAPH AND COMPARISON TRADITIONAL HYPOTHESES: DEVELOPMENT OF A SHOCK WAVE AND CME Victor Grechnev, Sergey Lesovoi, Alexander Altyntsev, Alexey Kochanov, Arkadiy Uralov, Alexey Gubin, Dmitry Zhdanov, Eugene Ivanov, Larisa Kashapova (<u>invited</u>)
9:30:00	09:50:00	SUN-TO-EARTH PROPAGATION OF THE 2015 JUNE 21 CORONAL MASS EJECTION REVEALED BY OPTICAL, EUV, AND RADIO OBSERVATIONS Nat Gopalswamy, Pertti A Makela, Sachiko Akiyama, Seiji Yashiro
9:50:00	10:10:00	THE 2015 JUNE 22-23 STORM EFFECTS: FROM THE SUN TO THE EARTH V. Yasyukevich, Vladimir Kalegaev, Ilya Zhivetiev, Natalya Kovyazina, Natalia Vlasova

10:10:00	10:30:00	EXPERIMENTAL STUDY OF IGW-WIND INTERACTION USING THE COMBINED IRKUTSK INCOHERENT SCATTER RADAR AND IONOSONDE DATA Andrey Medvedev, Konstantin Ratovsky, <u>Maxim TOLSTIKOV</u> , Sergey Alsatkin
10:30:00	10:50:00	MAGNETOSPHERE AND IONOSPHERE RESPONSE TO THE INTERPLANETARY SHOCK ON 24 JANUARY 2012 Vladimir Belakhovsky, Vjacheslav Pilipenko, Lisa Beddeley, Yaroslav Sakharov, Sergey Samsonov
10:50:00	11:20:00	<i>COFFEE BREAK</i>

Session 5
Sun to Earth campaign event study (continuation)
Chair: Jan Lastovicka

11:20:00	11:50:00	IONOSPHERIC OBSERVATIONAL CAMPAIGN STUDY OF GEOSPACE STORMS: A SCENARIO FOR STRONG IONOSPHERE AND THERMOSPHERE COUPLING DURING THE 2015 ST PATRICK'S DAY STORM Shunrong Zhang (<u>invited</u>)
11:50:00	12:10:00	UNUSUAL EVOLUTION OF PLASMA BUBBLES INTO NON-CONJUGATE FEATURES DURING 17 MARCH 2015 STORM Lakshmi Narayanan Viswanathan, Sukanta Sau, Subramanian Gurubaran, Rupesh Ghodpage, P. Patil

Session 6
Atmospheric response to solar variability and modulation of its impact on timescales from minutes to decades

12:10:00	12:30:00	LONG-TERM VARIABILITY AND TREND OF THE MESOSPHERE BASED ON PHASE-HEIGHT MEASUREMENTS OVER EUROPE Dieter H.W. Peters, Günter Entzian, Dieter Keuer, Jorge L. Chau
12:30:00	14:00:00	<i>LUNCH</i>

Session 6
Atmospheric response to solar variability and modulation of its impact on timescales from minutes to decades (continuation)
Chair: William Ward

14:00:00	14:30:00	PROGRESS IN LONG-TERM TRENDS IN THE MLT REGION Jan Lastovicka, ROSMIC WG3 team <u>(invited)</u>
14:30:00	14:50:00	SOLAR AND GEOMAGNETIC CONTROL OF IONOSPHERIC WINTER ANOMALY AND SUMMER EVENING ANOMALY IN NMF2 AND TEC Maxim Klimenko, Konstantin Ratovsky, Vladimir Klimenko, Yury Yasyukevich, Anna Yasyukevich, Nikolay Chirik, Alexander Markov, Alisher Abdullaev, Nina Korenkova
14:50:00	15:10:00	THERMOSPHERIC RESPONSE TO SOLAR VARIABILITY FROM MORE THAN 15 YEARS OF SABER DATA Linda Allen Hunt, Martin G Mlynchzak, Bruce T Tsurutani, Jesper W. Gjerloev, James Russell
15:10:00	15:40:00	SOLAR EFFECTS ON THE UPPER ATMOSPHERE FROM SOLAR FLARE TO SOLAR CYCLE TIME SCALES Liyang Qian <u>(invited)</u>
15:40:00	16:00:00	THE ENERGY BUDGET OF THE MESOSPHERE AND THERMOSPHERE – RESULTS FROM 15 YEARS OF SABER, SORCE, AND SEE OBSERVATIONS Martin Mlynchzak, <u>Linda Hunt</u> , B. Thomas Marshall, James Russell III
16:00:00	16:30:00	<i>COFFEE BREAK</i>

Session 6

Atmospheric response to solar variability and modulation of its impact on timescales from minutes to decades (continuation)

Chair: Takuji Nakamura

16:30:00	16:50:00	ATMOSPHERIC IMPACTS OF THE STRONGEST KNOWN SOLAR STORM OF 775 AD Timofei Sukhodolov
16:50:00	17:20:00	LONG-TERM TRENDS IN THE MIDDLE ATMOSPHERE OBSERVED USING GROUND BASED AND COMBINED SATELLITE MEASUREMENTS M. Venkat Ratnam <u>(invited)</u>
17:20:00	17:40:00	THE IONOSPHERIC DYNAMICS AS MEASURED BY THE DOPPLER SOUNDING AND BY THE DIGISONDE TECHNIQUE Daniel Kouba, Jaroslav Chum
17:40:00	18:00:00	OBSERVATIONS OF DYNAMICS IN THE HIGH ARCTIC MESOPAUSE REGION AND THERMOSPHERE William Ward, Marianna Shepherd, Qian Wu, Wayne Hocking, Alan Manson, Chris Meek, Sam Kristoffersen, Chris Vail

Friday, July 14

Session 7
Data archiving and analysis tools
Chair: Robert Redmon

14:00:00	14:30:00	SUNSPOT NUMBER: THE ONGOING MODERNIZATION OF A LONG-TERM REFERENCE Frédéric Clette, <u>Laure Lefèvre (invited)</u>
14:30:00	14:50:00	DATABASE OF COSMIC-RAY NEUTRON FLUXES HELD BY WDC FOR COSMIC RAYS Takashi Watanabe
14:50:00	15:20:00	PROGRESS IN HANDLING AND ANALYSIS OF GROUND-BASED GEOMAGNETIC DATA STREAMS FOR ADVANCED MONITORING OF THE EARTH'S MAGNETIC ENVIRONMENT Anatoly Soloviev <u>(invited)</u>
15:20:00	15:50:00	COFFEE BREAK

Session 7
Data archiving and analysis tools (continuation)
Chair: Takashi Watanabe

15:50:00	16:20:00	NCEI SUN TO EARTH: SPACE ENVIRONMENT ARCHIVE, TECHNIQUES, TOOLS AND RESULTS Robert Redmon <u>(invited)</u>
16:20:00	16:50:00	IUGONET TOOLS FOR SOLAR-TERRESTRIAL PHYSICS RESEARCH Yoshimasa Tanaka <u>(invited)</u>
16:50:00	17:10:00	RESULTS FROM FY-3 SOLAR IRRADIANCE MONITOR OBSERVATION, A NEW TSI DATA RECORD Jin Qi
17:10:00	17:30:00	CLOSING CEREMONY
19:00:00		CONFERENCE DINNER

Saturday, July 15

09:00:00	18:00:00	BOAT TRIP ON LAKE BAIKAL
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