Monday, July 8

8:30 – 8:45 **Opening**

Session 1 : Solar dynamo as a driver of space climate

08:45 – 09:25 **Manfred Schüssler** (Invited review), Max Planck Institute for Solar System Research, Germany
The solar dynamo: changing views

09:25 – 09:55 **Hideyuki Hotta** (Invited), Osaka University, Japan
Solar deep convection zone to surface

09:55 – 10:10 **Youhei Masada**, Aichi University of Education, Japan
Mean-field modeling of large-scale dynamo in solar-like strongly-stratified convection - the Rossby number dependence

10:10 – 10:50 **Antoine Strugarek** (Invited review), CEA Saclay-Dap/AIM, France
Recent progress in MHD simulations of solar convection and dynamo action

10:50 – 11:20 **Jörn Warnecke** (Invited), Max Planck Institute for Solar System Research, Germany
Modelling solar and stellar activity driven by turbulent dynamo effects

11:20 – 11:40 Coffee break

Session 2 : Solar photosphere TSI/SSI

11:40 – 12:20 **Natalie Krivova** (Invited review), Max Planck Institute for Solar System Research, Germany
Long-term variability of solar irradiance

12:20 – 12:35 **Greg Kopp**, LASP/University of Colorado, USA
An Historical TSI Reconstruction Based on Reevaluations of the TSI Composite and Sunspot Records

12:35 – 12:50 **Thierry Dudok de Wit**, University of Orléans, France
New reconstruction of the solar UV flux since 1950 from observations

12:50 – 13:05 **Luc Damé**, LATMOS/IPSL/CNRS/UVSQ, France
New solar spectrum SOLAR-ISS2 from 400 nm up to 5000 nm at very high resolution (better than 0.01 nm)

13:05 – 14:30 Lunch

14:30 – 15:10 **Thomas Woods** (Invited review), LASP/University of Colorado, USA
Solar Irradiance Variability Observations during Solar Cycles 21 to 24

Session 3 : Solar corona, solar wind and heliosphere

15:10 – 15:50 **Gordon Petrie** (Invited review), National Solar Observatory, USA
Cycle 24 and Longer-term Evolution of the Solar Photospheric and Coronal Magnetic Field

15:50 – 16:15 Coffee break

16:15 – 16:30 **Bertalan Zieger**, Boston University, USA
Two-Dipole Model of the Sun's Magnetic Field

16:30 – 17:10 **Alexis P. Rouillard** (Invited review), IRAP-CNRS, France
Evolution the slow solar wind during a solar cycle

17:10 – 17:25 **Olga V. Khabarova**, IZMIRAN/Institute of terrestrial magnetism, Russia
Polar conic current sheets. Characteristics of the newfound objects in the heliosphere and in the solar atmosphere

17:25 – 18:00 **Poster session**

18:00 **Welcome reception and poster viewing**

Tuesday, July 9

Session 4 : Long-term solar activity

08:30 – 09:10	**Alexei Pevtsov** (Invited review), National Solar Observatory, USA *Long-term studies of photospheric magnetic fields on the Sun*
09:10 – 09:25	**Eddie Ross**, University of Birmingham, UK *Solar cycle measurements of lifetimes of active and ephemeral region flux*
09:25 – 09:40	**Theodosios Chatzistergos**, INAF OAR, Italy *Composite of plage areas over the entire 20th century*
09:40 – 10:10	**Andrés Muñoz-Jaramillo** (Invited), Southwest Research Institute, USA *How Hemispheric Polar Field Reversal Sets the Timing and Shape of the Solar Cycle*
10:10 – 10:25	**Laure Lefevre**, Royal Observatory of Belgium *Advanced statistics to model the Sunspot Number series*
10:25 – 10:40	**Leif Svalgaard**, Stanford University *Nine Millennia of Multimessenger Solar Activity*
10:40 – 11:05	**Coffee break**
11:05 – 11:45	**Nat Gopalswamy** (Invited review), NASA Goddard Space Flight Center, USA *Long-term Variability of Solar Eruptive Events*
11:45 – 12:00	**Ilya Usoskin**, University of Oulu, Finland *Extreme Solar Particle Storms: Occurrence Probability and Implications*
12:00 – 12:30	**Ken Tapping** (Invited), National Research Council, Canada *Solar Radio Monitoring in Canada F10.7, Past, Present and Future*
12:30 – 13:00	**Hisashi Hayakawa** (Invited), Osaka University, Japan *Historical Candidate Auroras in Comparison with Auroral Reports during Known Extreme Events*
13:00	**Excursions**
18:00	**Dinner**

Wednesday, July 10

Session 5 : Solar cycle prediction

08:30 – 09:10 **W. Dean Pesnell** (Invited review), NASA Goddard Space Flight Center, USA
Predictions of Solar Cycle 24, Hindsight is 20/20

09:10 – 09:40 **Lisa Upton** (Invited), Space Systems Research Corporation, USA
Solar cycle 25 predictions

09:40 – 10:10 **Jie Jiang** (Invited), Belhang University, China
Predictability of the solar cycle and its application into the prediction of cycle 25

10:10 – 10:40 **Mausumi Dikpati** (Invited), NCAR, High Altitude Observatory, USA
Advances in model-based predictions of decadal and "seasonal" solar activity

10:40 – 11:00 Coffee break

11:00 – 11:40 **Kristof Petrovay** (Invited review), Eötvös Loránd University, Hungary
Solar cycle prediction on your fingers (and toes)

11:40 – 11:55 **Melinda Nagy**, Eötvös Loránd University, Hungary
Challenges of Solar Cycle Prediction Introduced by 'Rogue' Active Region Emergences

11:55 – 12:25 **Anthony R. Yeates** (Invited), Durham University, UK
How many active regions are needed to predict the solar dipole moment?

12:25 – 12:40 **Alexandre Lemerle**, Collège Bois-de-Boulogne, Canada
Solar cycle forecasting, using a data-driven 2×2D Babcock-Leighton solar dynamo model

12:40 – 14:00 Lunch

Session 6 : Data analysis methods

14:00 – 14:30 **Jay R. Johnson** (Invited), Andrews University, USA
An information-theoretical approach to complex dynamics: solar flares and geomagnetic substorms

14:30 – 14:45 **Simon Wing**, Johns Hopkins University, USA
Information theoretic approach to discovering causalities in the solar cycle

Session 7 : Solar wind-Magnetosphere-Ionosphere interaction

14:45 – 15:15 **Ioannis A. Daglis** (Invited review), National and Kapodistrian University of Athens, Greece
Predictability of the variable Solar-Terrestrial Coupling (PRESTO)

15:15 – 15:30 **Kalevi Mursula**, University of Oulu, Finland
Geomagnetic activity and geomagnetic storms throughout the Grand Modern Maximum: Centennial history of geo-effective solar variability

15:30 – 16:10 **Antti A. Pulkkinen** (Invited review), NASA Goddard Space Flight Center, USA
Space weather impacts and predictions: relevant spatial and temporal scales

16:10 – 16:35 Coffee break

16:35 – 17:15 **Craig Rodger** (Invited review), University of Otago, New Zealand
Towards a better understanding of long term drivers of radiation belt electron acceleration and loss

17:15 – 17:45 **Aude Chambodut** (Invited), EOST (CNRS/University of Strasbourg), France
Title to be determined

17:45 – 18:00 **Lauri Holappa**, University of Oulu, Finland
Explicit IMF By-dependence in geomagnetic activity

18:00 – 18:15 **Anton S. Savostianov**, NRU Higher School of Economics, Russia
Long-term Variation of the Coupling between Solar Proxies: Coupled Oscillators Approach

Session 8 : Solar influence on atmosphere and climate

18:15 – 18:30 **Alexander Ruzmaikin,** Jet Propulsion Laboratory, USA
Space Climate Forcing of the Earth Climate

Thursday, July 11

Session 8 : Solar influence on atmosphere and climate (continued)

08:30 – 09:00	**Brian A. Tinsley** (Invited), University of Texas at Dallas, USA *Solar wind influences on the ionosphere-earth current density and its influence on clouds*
09:00 – 09:30	**Bruce T. Tsurutani** (Invited), Jet Propulsion Laboratory, USA *A New Mechanism to Explain the Wilcox et al. (1973) Effect*
09:30 – 10:10	**Miriam Sinnhuber** (Invited review), Karlsruhe Institute of Technology, Germany *Direct and indirect impacts of energetic particle precipitation into the atmosphere*
10:10 – 10:35	Coffee break
10:35 – 11:15	**Hilde Nesse Tyssøy** (Invited review), Birkeland Centre for Space Science, Norway *A review on energetic particle fluxes and their parameterization for climate research*
11:15 – 11:30	**Timo Asikainen**, University of Oulu, Finland *Effect of energetic particle precipitation on atmospheric dynamics and climate variations*
11:30 – 12:00	**Paul Prikryl** (Invited), University of New Brunswick, Canada *Solar wind imprint on gravity waves and atmospheric circulation*
12:00 – 12:30	**Linda Hunt** (Invited), SSAI/NASA Langley Research Center, USA *Infrared Radiation in the Thermosphere from 1947 to 2019*
12:30 – 13:00	**Alexander Ruzmaikin,** Jet Propulsion Laboratory, USA *Closing*