

Focus Meeting 9 – Solar Irradiance: Physics-Based Advances

Oral Presentations

Session 0. Overview of Issues

22-Aug-2018

10:30 - 11:00. Hauke Schmidt (invited) *“Solar Irradiance for Climate Studies”*

11:00 - 11:30. Sami Solanki (invited) *“Magnetic Features as Drivers of Solar Brightness Variability”*

11:30 - 12:00. Ansgar Reiners (invited) *“Brightness Variations of Sun-Like Stars”*

Session 1: Available Solar-Irradiance Data Sets and Models

22-Aug-2018

15:30 - 15:50. Will Ball (invited) *“Long-Term Model-Based Reconstructions of the Solar Irradiance”*

15:50 - 16:10. Thierry Dudok de Wit (invited) *“Solar Irradiance: from multiple observations to a single composite dataset”*

16:10 - 16:25. Serguei Martchenko *“Solar Cycle 24: Accurate, Long-Term Solar Spectral Irradiance Measurements from Aura OMI”*

16:25 - 16:40. Martin Snow *“The SORCE Solar Spectral Irradiance Record: Fifteen Years of SSI”*

16:40 - 16:55. Benjamin Walter *“The latest TSI measurement results from the Compact Lightweight Absolute Radiometer (CLARA) onboard the NorSat-1 micro satellite”*

23-Aug-2018 (continuation of Session 1)

8:30 - 8:45. Werner Schmutz *“Assessing an uncertainty of the Total Solar Irradiance composite”*

8:45 - 9:00. Matthieu Kretzchmar *“How to model the variations of the Ly- α spectral irradiance?”*

9:00 - 9:15. Chi-Ju Wu. *“Solar Irradiance Reconstruction over the Last 9 Millennia with a Multi-isotope Composite”*

Session 2: Brightness Contrasts of Solar-Surface Magnetic Features

23-Aug-2018

9:15 - 9:45. Robert Rutten (invited) *“Non-Equilibrium Spectrum Formation affecting Solar Irradiance”*

9:45 - 10:00 Miha Cernetic *“Fast spectral synthesis for a new generation of solar and stellar brightness variability models”*

10:00 - 10:30 BREAK

10:30 - 11:00 Serena Criscuoli (invited) *“Using MHD simulations of the solar atmosphere to reproduce irradiance variations: challenges and recent progresses”*

11:00 - 11:30 Tatiana Ryabchikova (invited) *“Atomic and Molecular Data Collections for Fine Spectral Analysis and Flux Calculations”*

11:30 - 11:45 Ilaria Ermolli *“Atmosphere models from inversion of high-resolution spectropolarimetric observations for solar irradiance reconstructions”*

11:45 - 12:00 Romaric Gravet *“Observations of UV contrasts and their impacts on the solar irradiance models”*

Session 3. Structure and Evolution of Solar-Surface Magnetic Fields

23-Aug-2018

13:30 - 14:50 Hideyuki Hotta (invited) *“Calculations of the solar convection zone with the reduced speed of sound technique”*

13:50 - 14:10 Emre Isik (invited) *"Large-scale transport of solar magnetic flux"*
14:10 - 14:25 Arnab Choudhuri *"The Build-up of the Sun's Polar Magnetic Field due to Flux Transport from Decaying Active Regions"*
14:25 - 14:40 Dibyendu Nandi *"Modeling of Century-Scale Solar Activity and a Prediction for Cycle 25"*
14:40 - 14:55 Bindesh Tripathi *"Origin and recovery from grand solar minima in a time delay dynamo model with magnetic noise as an additional poloidal source"*
14:55 - 15:30 BREAK

Session 4. Extrapolating Solar Models to Sun-like Stars

23-Aug-2018

15:30 - 16:00 Ricky Egeland (invited) *"The Solar-Stellar Dynamo-Irradiance Connection: What Stellar Lightcurves Tell Us About How the Dynamo Works"*
16:00 - 16:30 Christoffer Karoff (invited) *"The Influence of Metallicity on Stellar Differential Rotation and Magnetic Activity"*
16:30 - 16:45 Nina-Elisabeth Nemeč *"Solar brightness variations as they would be observed by Kepler telescope"*
16:45 - 17:00 Hiroyuki Maehara *"Statistical properties of starspots on solar-type stars and their correlation with flare activity"*

Poster Presentations

Abdel HADY, Ahmed	X-class flares released during the peak of the decline phase of SC24, a descriptive study
Allende Prieto, Carlos Baranyi, Tünde	Revisiting the solar flux predicted by model photospheres Comparison of long-term sunspot databases suitable for irradiance modeling
Béland, Stéphane	Update to the Whole Heliosphere Interval (WHI) Solar Reference Spectrum
bhargawa, asheesh Carlesso, Franciele Chatzistergos, Theodosios	Solar variability and climate change – an Empirical Analysis Study of cavities geometry for absolute radiometer Generating magnetograms from Ca II K observations for irradiance reconstructions since the early 20th century
Diercke, Andrea	Synoptic maps of high-latitude filaments for solar cycle 24 observed by the Chromospheric Telescope
Dineva, Ekaterina	Monitoring Solar Activity Variations with High-Resolution Sun-as-a-star Spectroscopy
Efimenko, Volodymyr	Features of Long-Term Changes in Areas of Large Sunspots Groups in Solar Activity Cycles 12-24
Getling, Alexander	Multiscale structure of convection due to particularities of thermal stratification
Getling, Alexander Gursoy, Fulin Isik, Emre	Origin and early development stage of solar active regions General Features Of The Solar Cycle 24 Emergence and surface transport of magnetic flux in Sun-like stars
Isik, Seda Kepa, Anna	Sunspot group tilt angles for cycles 19-24 A multiwavelength analysis of the long duration flare observed on 2002 April 15
Krivodubskij, Valery Kupka, Friedrich	Double maximum of solar cycle Realistic 3D simulations of solar and stellar surface convection covering several days
Kuttickat, Raju	Variations of the Chromospheric Ca K Intensity from Kodaikanal Archival Data
Murakozy, Judit Nandi, Dibyendu	Long-term asymmetry in the solar hemispheric cycles Modeling of Century-Scale Solar Activity and a Prediction for Cycle 25
Nogami, Daisaku Priyatikanto, Rhorom Rabello Soares, M. Cristina Rabello Soares, M. Cristina Remesal Oliva, Alberto Rodríguez Gómez, Jenny Marcela Rodríguez Gómez, Jenny Marcela Selhorst, Caius	Superflares on Solar-Type Stars Prediction of Limb Flares Based on Coronal Images Effect of sunspots in their surroundings observed by HMI/SDO Acoustic mode frequencies as a proxy of solar cycle activity Degradation process in TSI radiometers due to UV radiation Plasma pressure variations through solar corona during the solar cycle 23 and 24 Coronal Electron Density And Temperature From Solar Spectral Irradiance During The Solar Cycle 23 And 24 Comparison of solar radio and extreme ultraviolet synoptic limb charts during the present solar maximum
Selhorst, Caius	Association of Radio Polar Cap Brightening with Bright Patches and Coronal Holes
Sokoloff, Dmitry	Cycle-dependent and cycle independent surface tracers of solar magnetic activity
Sylwester, Barbara	Is a hot plasma component present in the solar corona during periods of the lowest activity?
Sylwester, Janusz	Re-analysis of highest-resolution Solar Maximum Mission X-ray spectra using Bayesian deconvolution

Thuillier, Gerard

Solar disk radius determined from Sun occultation by the Moon using bolometric and photometric instruments onboard the PICARD satellite

Tripathi, Durgesh

Spatially resolved solar spectral irradiance in NUV with Solar Ultraviolet Imaging Telescope (SUIT) on board Aditya-L1 mission

GA2018 August 20th - 31st

	20th	21st	22nd	23rd	24th	Saturday	Sunday	27th	28th	29th	30th	31st
8:30 - 10:00	Registration	Plenary session S343 8:30-10:00	Plenary session S345 8:30-10:00	S343 8:30-10:00 S344 8:30-10:00 S345 8:30-10:00 FM3 8:30-10:00 FM9 8:30-10:00 FM12 8:30-10:00 FM14 8:30-10:00	Plenary session S344 8:30-10:00			Plenary session S346 8:30-10:00	Plenary session S347 8:30-10:00	Plenary session S348 8:30-10:00	S346 8:30-10:00 S347 8:30-10:00 S348 8:30-10:00 FM2 8:30-10:00 FM4 8:30-10:00 FM15 8:30-10:00	S346 8:30-10:00 S347 8:30-10:00 S348 8:30-10:00 FM2 8:30-10:00 FM4 8:30-10:00 FM15 8:30-10:00
10-10:30	coffee	coffee	coffee	coffee	coffee			coffee	coffee	coffee	coffee	coffee
10:30 - 12:00	S343 10:30-12:00 S344 10:30-12:00 S345 10:30-12:00 FM5 10:30-12:00 FM6 10:30-12:00 FM11 10:30-12:00 FM13 10:30-12:00	S343 10:30-12:00 S344 10:30-12:00 S345 10:30-12:00 FM5 10:30-12:00 FM6 10:30-12:00 FM11 10:30-12:00 FM13 10:30-12:00	S343 10:30-12:00 S344 10:30-12:00 S345 10:30-12:00 FM5 10:30-12:00 FM6 10:30-12:00 FM9 10:30-12:00 FM11 10:30-12:00	S343 10:30-12:00 S345 10:30-12:00 FM3 10:30-12:00 FM9 10:30-12:00 FM12 10:30-12:00 FM14 10:30-12:00	Poster sessions 10:30-11:00 Division 11:00-12:00			Poster sessions 10:30-11:00 Division 11:00-12:00	S346 10:30-12:00 S347 10:30-12:00 S349 10:30-12:00 FM1 10:30-12:00 FM7 10:30-12:00 FM10 10:30-12:00	100 years celebration S346 10:30-12:00 S347 10:30-12:00 S348 10:30-12:00 FM1 10:30-12:00 FM7 10:30-12:00 FM10 10:30-12:00 FM15 10:30-12:00	S346 10:30-12:00 S347 10:30-12:00 S348 10:30-12:00 S349 10:30-12:00 FM2 10:30-12:00 FM8 10:30-12:00	S346 10:30-12:00 S347 10:30-12:00 S349 10:30-12:00 FM2 10:30-12:00 FM4 10:30-12:00 FM15 10:30-12:00
12:00 - 13:30		Gruber prize lecture										
13:30 - 15:00	S343 13:30-15:00 S344 13:30-15:00 S345 13:30-15:00 FM5 13:30-15:00 FM6 13:30-15:00 FM11 13:30-15:00 FM13 13:30-15:00	S343 13:30-15:00 S344 13:30-15:00 S345 13:30-15:00 FM5 13:30-15:00 FM6 13:30-15:00 FM11 13:30-15:00 FM13 13:30-15:00	S343 13:30-15:00 S344 13:30-15:00 FM3 13:30-15:00 FM5 13:30-15:00 FM6 13:30-15:00 FM11 13:30-15:00 FM12 13:30-15:00	S344 13:30-15:00 S345 13:30-15:00 FM3 13:30-15:00 FM9 13:30-15:00 FM12 13:30-15:00 FM13 13:30-15:00 FM14 13:30-15:00	Division 13:30-15:00			Division 13:30-15:00	S346 13:30-15:00 S348 13:30-15:00 S349 13:30-15:00 FM1 13:30-15:00 FM7 13:30-15:00 FM10 13:30-15:00	S346 13:30-15:00 S348 13:30-15:00 S349 13:30-15:00 FM1 10:30-12:00 FM7 13:30-15:00 FM8 13:30-15:00 FM10 13:30-15:00	S346 13:30-15:00 S347 13:30-15:00 S348 13:30-15:00 FM2 13:30-15:00 FM4 13:30-15:00 FM8 13:30-15:00 FM15 13:30-15:00	S346 13:30-15:00 S347 13:30-15:00 S348 13:30-15:00 S349 13:30-15:00 FM4 13:30-15:00 FM8 13:30-15:00
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15:30-16:30		Poster sessions	S343 15:30-17:00 S344 15:30-17:00 S345 15:30-17:00 FM3 15:30-17:00 FM9 15:30-17:00 FM12 15:30-17:00 FM13 15:30-17:00	S343 15:30-17:00 S344 15:30-17:00 S345 15:30-17:00 FM3 15:30-17:00 FM9 15:30-17:00 FM12 15:30-17:00 FM14 15:30-17:00	Division 15:30-18:30			Division 15:30-17:00	S347 15:30-17:00 S348 15:30-17:00 FM1 15:30-17:00 FM7 15:30-17:00 FM10 15:30-17:00 FM15 15:30-17:00	S348 15:30-17:00 S349 15:30-17:00 FM1 15:30-17:00 FM7 15:30-17:00 FM8 15:30-17:00 FM10 15:30-17:00	Poster sessions	100 years celebration S347 15:30-17:00 S348 15:30-17:00 S349 15:30-17:00 FM2 15:30-17:00 FM4 15:30-17:00 FM8 15:30-17:00
16:45-17:00	Opening ceremony	Business Meeting of the General Assembly I									Business Meeting of the General Assembly II * group photo * 100 years toast Hand Over Ceremony	
17:15-18:15	GA reception all participants & guests		invited discours	invited discours			Plenary session S349 17:15-18:00	invited discours				
18:15-19								100 years celebration & musical moment	reception by A&A - 50th anniversary commemoration			
20		reception by the Town Hall by invitation only (1,000)						Reception Austrian Academy of Science by invitation (150)		Conference Dinner		