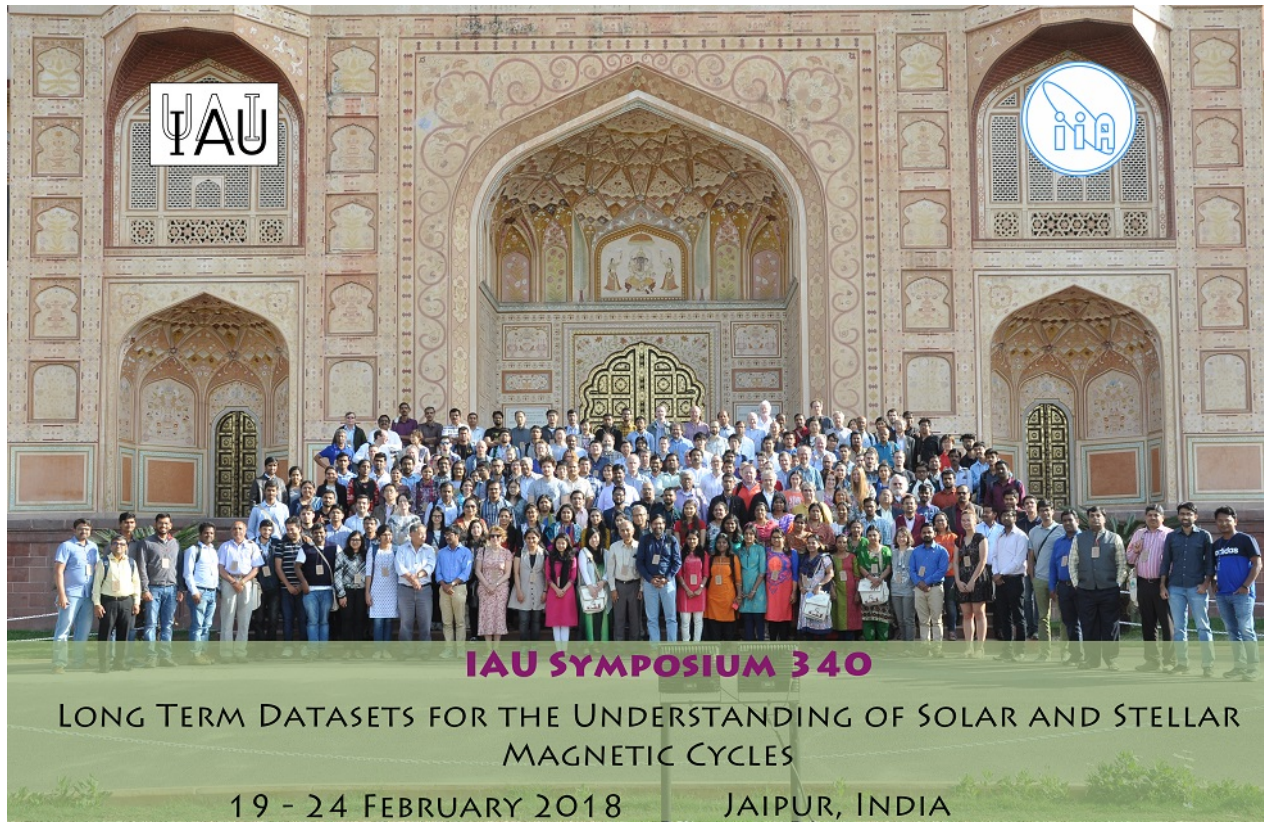


Post Meeting Report

IAU SYMPOSIUM 340

Long Term Datasets for the Understanding of Solar and Stellar Magnetic Cycles



Symposium photograph taken on 20th February 2017

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(i) Final scientific program, list of invited review speakers and session chairs

Following is the list of invited speakers and session chairs and in next pages contain scientific oral and poster programs, with any corrections from the published conference booklet.

Invited Speakers (in the order of the Scientific Program)

Aaron C Birch (Max Planck Institute for Solar System Research, Germany)
Shravan Hanasoge (Tata Institute of Fundamental Research, India)
Robert Cameron (Max Planck Institute for Solar System Research, Germany)
Sarbani Basu (Yale University, USA)
Aimee Norton (Stanford University, USA)
Frederic Clette (Royal Observatory of Belgium, Belgium)
Andres Munoz-Jaramillo (SouthWest Research Institute, USA)
M J Owens (University of Reading, UK)
Ilaria Ermolli (INAF Osservatorio Astronomico di Roma, Italy)
Nat Gopalswamy (NASA Goddard Space Flight Center, USA)
Qi Hao (School of Astronomy and Space Science, Nanjing University, China)
Martin Snow (University of Colorado / LASP, USA)
Natalie Krivova (Max Planck Institute for Solar System Research, Germany)
Travis Metcalfe (Space Science Institute, USA)
Alexander Shapiro (Max Planck Institute for Solar System Research, Germany)
Ansgar Reiners (Georg-August-Universität Göttingen, Germany)
K Shibata (Astronomical Observatory, Kyoto University, Japan)
María Weber (University of Chicago, Adler Planetarium, USA)
Jie Jiang (School of Space and Environment, Beihang University, China)
Antoine Strugarek (CEA Saclay / DAp, France)
Maarit Kapyla (Max-Planck-Institute for Solar System Science, Germany)
Masumi Dikpati (NCAR/High Altitude Observatory, USA)
Dibyendu Nandi (Center of Excellence in Space Sciences India, Indian Institute of Science Education and Research Kolkata, India)

Session Chairs (in the order of the Scientific Program)

Siraj Hasan (Indian Institute of Astrophysics, India)
Alexi Peptsov (National Solar Observatory, USA)
Todd Hoeksema (Stanford University, USA)
Nandita Srivastava (Udaipur Solar Observatory, Physical Research Laboratory, Udaipur, India)
Federic Clette (Royal Observatory of Belgium, Belgium)
Ilaria Ermolli (INAF Osservatorio Astronomico di Roma, Italy)
Gerry Doyle (Armagh Observatory and Planetarium, UK)
Greg Kopp (Univ. of Colorado / LASP, USA)
Andres Lagg (Max Planck Institute for Solar System Research, Germany)
Jie Jiang (School of Space and Environment, Beihang University, China)

Monday, 19th February 2018

Session 1: Velocity Fields in the Convective Zone

Chair: Siraj Hasan

09:00 – 09:45	Inauguration
09:45 – 10:15	Aaron C Birch - Data and Methods for Helioseismology
10:15 – 10:45	Shravan Hanasoge - New constraints on interior convection from measurements of normal-mode coupling
10:45 – 11:00	Chia-Hsien Lin - Probing solar-cycle variations of magnetic fields in the convective zone using meridional flows
11:00 – 11:30	Tea Break
11:30 – 12:00	Robert Cameron - Small-scale flows and the solar dynamo
12:00 – 12:30	Sarbani Basu - Solar Large-scale flows and their variations
12:30 – 12:45	Sushant S. Mahajan - Torsional oscillations: a tool to map magnetic field amplification inside the Sun
012:45 – 02:00	Lunch Break

Abstracts can be found in [IAUS 340 website](#)

Session 2. Most widely used Indices of Solar Cycle - Magnetic Field and Sunspot Number

Chair - Alexi Peptsov

- 02:00 – 02:30 **Aimee Norton** - A Century of Solar Magnetograms
- 02:30 – 02:45 J Todd Hoeksema - Long-term Measurement of the Solar Magnetic Field
- 02:45 – 03:00 Nataliia Shchukina - Kyiv monitoring program of spectral line variations with 11-year cycle. Quiet Sun
- 03:00 – 03:15 Dilyara Baklanova - Long-term stellar magnetic field study at the Crimean Astrophysical Observatory
- 03:15 – 03:30 Cesare Scalia - The long term variation of the effective magnetic field of the active star epsilon Eridani
- 03:30 – 04:30 **Extended Tea Break/Poster Session**
- 04:30 – 05:00 **Frédéric Clette** - Sunspot number datasets : status, divergences and unification
- 05:00 – 05:15 Richard Bogart - MDI + HMI: 22 Years of Full-Disc Imagery from Space
- 05:15 – 05:30 Jagdev Singh - Variations in Ca-K line profiles and normalized Intensity as a function of latitude and solar cycle during the 20th century: Implication to Meridional flows
- 05:30 – 05:45 Angela R. G. Santos - Seismic signatures of magnetic activity in solar-type stars observed by Kepler
- 05:45 – 06:00 Lalitha Sairam - A comprehensive variability study of the complex corona of Capella

Chair - Todd Hoeksema

- 09:30 – 10:00 **Andres Munoz-Jaramillo**—Uncertainty, Under-counting, and Survey
Inconsistency: Overlooked Issues While Working With Sunspot Area Data
- 10:00 – 10:15 Kiran Jain —Un-interrupted Sun-as-a-star Helioseismic Observations over
Multiple Solar Cycles
- 10:15 – 10:30 Aleksandra Anatolyevna Osipova —Two populations of sunspots
- 10:30 – 10:45 Marielle Eduardo—Correlation of the New Sunspot Number and
Geomagnetic aa Index in the Years 1900-2013
- 10:45 – 11:00 Ali Kilcik —Zurich Sunspot Groups, Flaring Activity and their Temporal
Variations
- 11:00 – 11:30 **Tea Break**

Session 3. Indices of Solar Cycle from Photosphere to the Heliosphere

Chair: Nandita Srivastava

- 11:30 – 12:00 **M J Owens**—Long-term variations in the global heliosphere
- 12:00 – 12:15 Takahito Sakaue —Call K spectroheliogram time series from Kwasan-
Ikoma observatories, Kyoto University
- 12:15 – 12:30 Theodosios Chatzistergos —Ca II K spectroheliograms for studies of long-
term changes in solar irradiance
- 12:30 – 12:45 Emre Isik - Sunspot group tilt angles from drawings for cycles 19-24
- 12:45 – 02:00 **Lunch Break**

Chair: Federic Clette

02:00 – 02:30	Iliaria Ermolli - Historical and modern full disk Ca II K observations: a resource for long-term studies of solar activity and variability
02:30 – 03:00	Nat Gopalswamy - Coronal mass ejections as a new indicator of the active Sun
03:00 – 03:15	Subhamoy Chatterjee - Generation of Carrington maps and automated feature detection from Ca II K spectroheliograms of Kodaikanal Solar Observatory
03:15 – 03:30	Sudip Mandal - Variable nature of differential rotation profile of the Sun: A study using Kodaikanal digitized white-light data archive
03:30 – 04:30	Group Photo Session and Extended Tea Break/Poster Session
04:30 – 05:00	Qi Hao - Automated Detection Methods for Solar Activities and an Application for Statistic Analysis of Solar Filament
05:00 – 05:15	Lionel Bigot - On the Sun's oscillations during its magnetic cycle
05:15 – 05:30	Renzo Ramelli - Sunspot data collection and archiving at Specola Solare Ticinese
05:30 – 05:45	Andrei Tlatov - Evolution of structures with an open magnetic flux over a hundred years
05:45 – 06:00	S.Ananthakrishnan - Quiet Flows the Solar Wind: Long-term Trends in Solar Photospheric Fields and Solar Wind Micro-Turbulence
06:30	Dinner at Chokhi Dhani (Departure B M Birla Auditorium)

Chair: Ilaria Ermolli

08:00 – 01:30	Excursion to Amber Fort and Jantar Mantar
01:30 – 02:30	Lunch Break
02.30 – 02:45	Manjunath Hegde - Long term study of the solar filaments from the Synoptic Maps as derived from H Spectroheliograms of Kodaikanal Observatory
02.45 – 03:00	Debi Prasad Choudhary - Synoptic Solar Chromosphere and Photosphere Observations at San Fernando Observatory for a Complete Magnetic Cycle
03:00 – 03.15	Kseniya Andreevna Tlatova - Reconstruction of solar activity according to the data of centenary observations

Session 4. Total Solar Irradiance and Spectral Solar Irradiance,

Chair: Ilaria Ermolli

03:15 – 03:45	Greg Kopp - The Long-Term TSI Data Record
03.45 – 04.00	Luc Damé - SOLAR/SOLSPEC: new solar reference spectrum 165-3000 nm and 9 years observations of solar spectral ultraviolet irradiance from the ISS
04.00 – 04.30	Tea Break
04.30 – 05.00	Martin Snow - Ultraviolet Solar Spectral Irradiance Variation on Solar Cycle Timescales
05.00 – 05.30	Natalie Krivova - TSI and SSI variations with solar magnetic cycle: reconstruction and physics
05.30 – 05.45	SOLARSEG: Correlation and periodicity of the EUV irradiance obtained from the daily segmentation of EUV images over a 7-years period
05.45– 06.00	Marianne Faurobert - Variation of the photospheric temperature gradient with magnetic activity

Session 5. Solar - Stellar Connection

Chair: Gerry Doyle

09:30 – 10:00	Travis Metcalfe - A Stellar Perspective on the Magnetic Future of the Sun
10:00 – 10:30	Alexander Shapiro - Brightness variations of solar-type stars: available datasets and recent achievements
10:30 – 10:45	Kosuke Namekata - Statistical Study of Solar White-light Flares and Comparison with Superflares on Solar-type Stars
10:45 – 11:00	Veronika Witzke - Does the Sun behave unusually for a Sun-like star?
11:00 – 11:30	Tea Break
11:30 – 12:00	Ansgar Reiners - Measuring stellar magnetic fields and proxies of magnetic activity
12:00 – 12:15	Eliana Maritza Amazo Gómez- A novel method to obtain stellar rotational periods
12:15 – 12:30	Subhajeet Karmakar - Active ultra-fast rotators KIC 6791060 and LO Pegasi: Starspot modulation, surface differential rotation, and flares
12:45 – 02:00	Lunch Break
02:00 – 02:15	Huiqin Yang- The flaring activity of M dwarfs
02:15 – 02:30	Han He - Phase difference between long-term magnetic feature activity and flare activity of solar-type stars

Session 6. Solar behavior over centuries

Chair: Greg Kopp

02:30 – 03:00	K Shibata - Extreme Solar Events
03:00 – 03:15	Pete Riley - The State of the Solar Wind and Magnetosphere During the Maunder Minimum
03:15 – 03:30	Chi Ju Wu - Solar Spectral Irradiance over 9 Millennia from a Multi-isotope Composite Series
03:30 – 03:45	Salvo Guglielmino - Long-term optical monitoring of the solar atmosphere in Italy
03:45 – 04:00	Tanmoy Samanta - Periodic and quasi-periodic activity in the 100-years of Kodaikanal sunspot data
04:00 – 06:00	Extended Tea Break/Poster Session
06:30	Banquet at Taj Jai Mahal Palace (Departure from venue)

Session 7. Solar and Stellar Dynamo

Chair: Andres Lagg

09:30 – 10:00	María Weber - Dynamo Processes Constrained by Solar and Stellar Observations
10:00 – 10:30	Jie Jiang - State-of-art of kinematic modeling solar cycle
10:30 – 10:45	Arnab Rai Choudhuri - The Sun's polar magnetic field: datasets, proxies and theoretical issues
10:45 – 11:00	Bidya Binay Karak - Long term Variability of Solar Cycle in the Babcock-Leighton dynamo framework
11:00 – 11:30	Tea Break
11:30 – 12:00	Antoine Strugarek - MHD Models of Solar and Stellar Dynamos with magnetic cycles
12:00 – 12:30	Maarit Kapyla - State-of-art of MHD modeling solar cycle
12:30 – 12:45	Abraham C.-L. Chian - Kinematic and magnetic coherent structures in turbulent solar dynamo
12:45 – 01:00	Valentina Abramenko - Turbulent diffusion in the photosphere as observational constraint on dynamo theories
01:00 – 02:00	Lunch Break

Session 8. Predictions and Predictability of Solar Cycle

Chair: Jie Jiang

02:00 – 02:30	Masumi Dikpati - Forecasting phase-by-phase progression of a solar cycle using data assimilation and machine learning
02:30 – 02:45	Prantika Bhowmik - Predicting Solar Cycle 25 Using a Coupled Surface Flux Transport and Dynamo Model
02:45 – 03:00	Gopal Hazra - A theoretical model of the variation of the meridional circulation with the solar cycle
03:00 – 03:30	Dibyendu Nandi - The Physics of Solar Cycle Predictability
03:30 – 04:30	Extended Tea Break/Poster Session
04:30 – 05:00	Kristof Petrovay - Rogue active regions and the inherent unpredictability of the solar dynamo
05:00 – 05:15	Sacha Brun - Solar Predict: a novel 4-D Var method for predicting the 11-yr solar cycle
05:15 – 06:00	Dipankar Banerjee - Closing summary and closing remarks
06:30	Nat Gopalswamy - Public Lecture: Our life-giving star, the Sun and its dark side

List of Posters

Session 1: Velocity fields in the convective zone

S1-P1	Lekshmi B	Study on Hemispherical Asymmetry of Torsional Oscillation
S1-P2	Yuto Bekki	Deep convective amplitude and stratification in an effectively high-Prandtl number thermal convection
S1-P3	Jishnu Bhattacharya	Iterative inversion of synthetic travel times successful at recovering sub-surface profiles of supergranular flows
S1-P4	Vincent Böning	Inversions for the Deep Solar Meridional Flow and the associated Error Analysis
S1-P5	Qing Gao	A study of Be star activity in Kepler field of view
S1-P6	Kiran Jain	22 Year Solar Magnetic Cycle and its relation to Convection Zone Dynamics
S1-P7	Bidya Binay Karak	The increase of effective Prandtl number, a possible solution to the solar convection conundrum, causes anti-solar differential rotation
S1-P8	Sushant S. Mahajan	Measurements of Meridional Flow and Differential Rotation on the Sun's surface from 1995 to 2017
S1-P9	Krishnendu Mandal	Inversion for meridional circulation with the spherical Born kernels
S1-P10	Ivan Milic	Atmospheric diagnostics using spectropolarimetric inversions
S1-P11	Hannah Schunker	Statistical analysis of the evolution of active region tilt angles

Session 2: Solar and stellar cycles

S2-P1	Amareswari K	Connection between Active region complexity and Solar Flare strength
S2-P2	Mahender Aroori	Microwave studies of Quiet Sun Radiation during Solar Minimum and Maximum Phase of Solar Cycle 23 and 24
S2-P3	Roshni Atulkar	Evaluation of long term solar activity effects on critical frequency of F layer
S2-P4	Prem Kumar Battula	Variations of the meteor count rate and echo height during solar cycle 23 and 24
S2-P5	Miral Bhatt	A study of Stealth CMEs and associated ICMEs
S2-P6	Souvik Bose	Role of the active regions and background field towards the solar mean magnetic field
S2-P7	Brajesh Kumar	Study of solar cycle induced variations in the solar mean velocity flows : GONG observations
S2-P8	Frédéric Clette	The new Sunspot Number: continuing upgrades and possible impacts

S2-P9	Vipin Das V	A study on the variations in long-range dependence of solar energetic particles during different solar cycles
S2-P10	Soumyaranjan Dash	Modeling of Solar Corona: A Magnetofrictional Approach
S2-P11	Kunjal Dave	Study of Interplanetary and Geomagnetic Response of Filament Associated CMEs
S2-P12	Amar Deo Chandra	Development of a High Resolution Imaging Spectrometer for exploring the Sun's corona
S2-P13	Bernhard Fleck	Long-term data sets from SOHO
S2-P14	Sanjay Gusain	Synoptic Magnetic Fields Measurements of the Solar Chromosphere: Properties during Cycle 23 and 24
S2-P15	Emre Isik	Starspot activity and differential rotation in KIC 11560447
S2-P16	J. Javaraiah	Long term variation in meridional motion of sunspot groups : comparison of DPD and SOON data
S2-P17	Chandan Joshi	Search for Correlation between Solar Flare Count and Mean Solar Magnetic Field
S2-P18	Varsha K R	Rotation Rate Of High Latitude Coronal Holes
S2-P19	Bogyeong Kim	Cycle length dependence of stellar magnetic activity and solar cycle 23
S2-P20	Bogyeong Kim	States of solar activities and interplanetary parameters during solar cycles 21 - 24
S2-P21	Chia-Hsien Lin	Studying solar-cycle variation of open magnetic flux regions using coronal holes
S2-P22	Liu Suo	Toward Standard Data Production for Magnetic Field
S2-P23	Rohan Eugene Louis	Design of an adaptable Stokes polarimeter for exploring chromospheric magnetism
S2-P24	Salvatore Mancuso	Multivariate analysis of intermediate quasi-periodicities of the green corona intensity
S2-P25	Sudip Mandal	Science results obtained from century-long Kodaikanal white-light digitized data archive
S2-P26	Megha A	Coronal magnetic field measurements using forbidden emission lines
S2-P27	Megha A	Estimation of coronal plasma parameters using coronal spectroscopy
S2-P28	Suman Panda	A study of Twist and Tilt angle distribution of solar active regions from SDO/HMI observations
S2-P29	Deepak Pandey	Coparison between Associated and Non-associated type II solar radio bursts during increasing phase of solar cycle 23
S2-P30	Umang V Pandya	Study Of X-Ray Emission Characteristics In Solar Flares employing SOXS: CZT detector
S2-P31	Avijeet Prasad	Magnetohydrodynamic modeling of solar atmosphere using non-force-free magnetic fields
S2-P32	Santhoshkumar G	A study on universality, non-extensivity and Lévy statistics of solar wind turbulence
S2-P33	Samrat Sen	Magnetohydrostatic equilibrium solution of a fluxtube

S2-P34	Samrat Sen	Energy distribution of solar flare events
S2-P35	Sowmya Krishnamurthy	Downflows in the chromosphere seen by He I 10830 A lines
S2-P36	Suji K J	Superposed Epoch Analysis of high latitude Ionospheric Joule Heating During Major Geomagnetic Storms over three Solar Cycles
S2-P37	Suji K J	Energetics of Magnetosphere-Ionosphere System during main Phase of Intense Geomagnetic Storms over three Solar Cycles
S2-P38	Sushma G. N.	Decadal Variation of Equatorial Rotation Rate of the Sun from Kodaikanal Digitized Data
S2-P39	Yan Yan	Decades of Chinese Solar and Geophysical Data

Session 3: Indices of solar cycle from photosphere to the heliosphere

S3-P1	Aslam A M	Nature of Response of Geomagnetic Field to Solar Cycle at Different Latitudes
S3-P2	Amareswari K	Century long study of sunspot activity using the Kodaikanal white-light data
S3-P3	Amrita Prasad	Short Memory and Fractal behavior of The Solar radio flux at 10.7 cm wavelength (2800 MHz) obtained from Ottawa and Penticton, British Columbia, Dominion Radio Astrophysical Observatory during the per
S3-P4	Anshu Kumari	New Evidence for Coronal Mass Ejection Driven High Frequency Type II Burst Near the Sun
S3-P5	Dipankar Banerjee	Century-long, multi-wavelength Solar Database From Kodaikanal Solar Observatory
S3-P6	Maciej Bzowski	Solar activity affecting the heliosphere and heliospheric particle populations
S3-P7	Ramesh Chandra	EUV Wave Event: Deflection and Stationary Fronts
S3-P8	Subhamoy Chatterjee	Detection and Time-latitude Study of Network Bright Elements from Century-long Kodaikanal Ca II K Data
S3-P9	Veena Manohar Choithani	Study of solar flares associated with CMEs affecting the geosphere
S3-P10	Partha Chowdhury	Midrange periodicity of basal component of Ca K plage index
S3-P11	Jinee Gogoi	A study of effects of Geomagnetic Storms on Ionosphere and their relationship with Sub storms during solar cycle 23.
S3-P12	Hariharan Krishnan	Study of Solar Eruptive Phenomena using archived Radio Observational Dataset
S3-P13	Manjunath Hegde	Long term study of sunspot characteristics from Cak images of Kodaikanal Observatory

S3-P14	Bibhuti Kumar Jha	Long-term variation of sunspot penumbra to umbra ratio: A study using Kodaikanal white-light digitized data
S3-P15	Anand D Joshi	Statistical Study of Eruptive and Disappearing Filaments
S3-P16	Reetika Joshi	Multiple Hot and Cool Jets on 2017 April 04
S3-P17	K. Sasikumar Raja	Solar cycle dependence of the density fluctuations and proton heating rate in the solar wind
S3-P18	Sonia Kaushik	Solar Wind Plasma Flows and Space Weather Aspects during recent solar cycles
S3-P19	Subhash Chandra Kaushik	Long term Variations of the Solar Plasma Events and Their Interplanetary Consequences
S3-P20	Subhash Chandra Kaushik	Study of Geo-effective Solar Plasma Transients and Associated Geoeffectiveness
S3-P21	Parvaiz Ahmad Khan	Study of positional Error on the GPS signals due to ionospheric variations
S3-P22	Marzena A. Kubiak	Modulation of interstellar gas and heliospheric backscatter glow due to variation in solar activity
S3-P23	Mahesh Chandra Mathpal	Study of all India Homogeneous Rainfall with Solar Activity Features during 1900-2014
S3-P24	Rakesh Mazumder	Filament, Polarity Inversion Line and Coronal Hole properties in Solar Cycle 23 from McIntosh database
S3-P25	Wageesh Mishra	Solar Cycle Variation of Coronal Mass Ejections and the Near Earth Solar Wind Parameters
S3-P26	Atul Mohan	Exploring Coronal Magnetic Field dynamics using Low Radio Frequency Observations
S3-P27	Surajit Mondal	A low-frequency radio interferometric solar imaging pipeline for the Murchison Widefield Array
S3-P28	Aabha Monga	Failed filament eruption associated with small scale magnetic features
S3-P29	Nancy Narang	Association of calcium network bright points with underneath photospheric magnetic patches
S3-P30	Sushree Sangeeta Nayak	Magnetic field topology from non-force-free extrapolation and magnetohydrodynamic simulation of its eventual dynamics
S3-P31	Divya Oberoi	Solar science at low-radio frequencies: Coming of age
S3-P32	Navdeep Panesar	The Triggering Mechanism of Coronal Jets and CMEs: Flux Cancellation
S3-P33	Vaibhav Pant	Automated detection of coronal mass ejection in Heliosphere
S3-P34	Ritesh Patel	Automated detection of Coronal Mass Ejections in Visible Emission Line Coronagraph (VELC) on-board ADITYA-L1
S3-P35	Pramod Kumar	Monte Carlo analysis of X-ray emissions observed from RHESSI X class solar flares during 2002-2004
S3-P36	Rangarajan K E	Mapping of Chromospheric Velocity from Imaging Spectroscopy using Tunable Lyot Filter at the Kodaikanal Observatory

S3-P37	Soumya Roy	Scaling Analysis of the Flare Index Data from Kandilli Observatory
S3-P38	Aveek Sarkar	Numerical Simulation of active region MHD oscillations and coronal loop implosion
S3-P39	Ranadeep Sarkar	Geometric and magnetic properties of coronal flux ropes associated with CMEs leading to geomagnetic storms
S3-P40	Pranjal Sarmah	Understanding the Dynamics of Prominences
S3-P41	Seema C S	Phase analysis of solar activity indices using wavelet techniques
S3-P42	Rohit Sharma	Quantifying weak non-thermal meterwave solar emission using non-imaging techniques
S3-P43	Prithvi Raj Singh	Heliospheric Modulation of Cosmic Rays and Solar Activity during Solar Cycles 22 -24
S3-P44	Vivek Kumar Singh	Study of Coronal Rotation using X-ray Images observed by Hinode
S3-P45	Martin Snow	Magnesium II index measurements from SOLARSEC and GOES-16 EUVS
S3-P46	Syed Ibrahim M	Estimation of coronal magnetic field using type II band splitting
S3-P47	T.E.Girish	On The Characteristics Of Geomagnetic Storms Observed During The Past 415 Years
S3-P48	Durgesh Tripathi	IRIS Observations of Quiet-Sun and Coronal Holes in Mg II k
S3-P49	Joe Zender	SOLARSEG: Segmentation of Photospheric Magnetic Elements Corresponding to Coronal Features to Understand the EUV and UV Irradiance Variability

Session 4: Total Solar Irradiance (TSI) and Spectral Solar Irradiance (SSI)

S4-P1	Baburaj M S	On The Variations Of Surface Solar Radiation In Trivandrum City During The Years 1837-2011
S4-P2	Ashwini S Naidu	Extraction of Coronal Features from Spatially Resolved Images of 174A observed from PROBA2/SWAP to Understand EUV Irradiance Variability
S4-P3	P Venkatakrishnan	Solar Activity and Climate Change
S4-P4	Seema C S	A wavelet analysis of F2 layer critical frequency over solar cycle23
S4-P5	T. E. Girish	Solar Activity Changes During Prolonged Sunspot Minima As Inferred From Indian Monsoon Rainfall Variations.
S4-P7	Durgesh Tripathi	The Solar Ultraviolet Imaging Telescope on board Aditya-L1
S4-P7	Yamini K. Rao	Multi-line Spectroscopic Analyses of the Dynamical Cool Loops Using Interface Region Imaging Spectrometer (IRIS)

Session 5: Solar-stellar connection

S5-P1	Srijan Bharati Das	The Evolution of Activity of Solar-Like Stars with Age.
S5-P2	Shashanka R Gurumath	Influence of planets on the magnetic activity of sun like stars
S5-P3	Hiremath, K. M	A possible solution for the Faint Young sun paradox
S5-P4	Huiqin Yang	The flaring activity of M dwarfs
S5-P5	Mohamed Ismaiel	Case study on complex Forbush decrease caused by interacting and non-interacting passing CME
S5-P6	Julian David Alvarado Gomez	Investigating Transient Events in Active Stars
S5-P7	Cui Kaiming	Long-term rotational main-sequence variables in Kepler SAP light curve
S5-P8	Jyri Lehtinen	Doppler imaging active longitudes at the Nordic Optical Telescope
S5-P9	Sudheer Kumar Mishra	The growth of magnetic Rayleigh-Taylor instability into the outer solar atmosphere and in the low inter-planetary space
S5-P10	Kosuke Namekata	Statistical Study of Solar White-light Flares and Comparison with Superflares on Solar-type Stars
S5-P11	Drabindra Pandit	Solar Activities and its Impact on Space Weather
S5-P12	Petrus C Martens	Data Handling and Assimilation for Stellar Cycle Prediction
S5-P13	Sreejesh PS	Understanding the ultraviolet energy budget of exoplanet host stars

Session 6: Solar behavior over centuries

S6-P1	Aranya S	Characteristics Of Solar Proton Events Observed Near Earth And Stellar Activity Variations
S6-P2	Ravindra B	Study of long term variations in hemispheric asymmetry of solar activity
S6-P3	Dipankar Banerjee	Latitude Distribution of Sunspots: Analysis Using Sunspot Data and a Dynamo Model
S6-P4	Jayalekshmi G. L.	Distribution of hemispheric solar activity during various phases of solar cycles
S6-P5	Hiremath, K M	Nerally century scale variations of Sun's radius and

		Earth's orbital distance
S6-P6	J. Javaraiah	Long-term variations in solar activity and planetary configurations
S6-P7	Valeriya Vasilyeva	Properties of prominences in 14-24 cycles of activity
S6-P8	Roshan Kumar Mishra	Characteristics of Solar Wind Parameters and Geomagnetic Indices during Solar Flares
S6-P9	Rutvik Pandit	Calculation of rate of decrease of heliosphere and calculating increase in orbital period of planets due to CME and solar flares
S6-P10	Vaibhav Pant	Kinematics of Fast and Slow Coronal Mass Ejections in solar cycles 23 and 24
S6-P11	Priya T G	Study of running penumbral waves in H-alpha data
S6-P12	Brigitte Schmieder	Geoeffective events through the solar cycles
S6-P13	Senthamizh Pavai Valliappan	Cycle-averaged tilt angles of sunspot groups over centuries
S6-P14	Daniel Wagner	Variation of the auroral oval size and offset
S6-P15	Malik Abdul Waheed	The Dynamics of High Latitudinal Magnetosphere in Relation to Solar Energetic Particles

Session 7: Solar/stellar dynamo

S7-P1	Arnab Basak	Study of starspots in fully convective stars using three dimensional MHD simulations
S7-P2	Alemayehu	Effect of viscosity on propagation of MHD waves in astrophysical plasma
S7-P3	Gopal Hazra	Incorporating Surface Convection Into A 3d Babcock-Leighton Solar Dynamo Model
S7-P4	Aleksandr Kutsenko	Flux emergence rate of active regions as a probe for turbulent dynamo action
S7-P5	Bindesh Tripathi	Modeling grand minima using hysteresis in a time delay solar dynamo model
S7-P6	Varnana M Kumar	Inferring stellar activity variations near habitable extrasolar planets using dynamical effects
S7-P7	Mariangela Viviani	Solar-like stars at various rotation rates: a comparison between observations and simulations

Session 8: Predictions and predictability of solar cycle

S8-P1	Binod Adhikari	Analysis of Sunspots Number during Solar Cycle 21
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		and 22
S8-P2	Asheesh Bhargawa	Forecasting Solar Activity Parameters for 25th Solar Cycle using Rescaled Range Analysis
S8-P3	Nipa J Bhatt	Reassessing the Predictions of Sunspot Cycle 24
S8-P4	Dattaraj Dhuri	Prediction of solar flares from photospheric magnetic field using machine learning
S8-P5	Martina Exnerová	Solar Activity Service And Reports From The Ondrejov Observatory
S8-P6	Jayalekshmi G. L.	Prediction of upcoming grand episodes of solar activity
S8-P7	Sumesh Gopinath	Prediction of future evolution of solar cycle 24 using machine learning techniques
S8-P8	Jie Jiang	Predictability of the subsequent cycle at different phase of a cycle
S8-P9	Sankar Narayan Patra	Nonlinear Autoregressive Model (NARX) of Stationary Forbush Decrease Indices Based on Levenberg-Marquardt Feedback Algorithm
S8-P10	Volkan	Nonlinear Prediction of Solar Cycle 25

(ii) Summary of the scientific highlights of the meeting

Solar variations have significant influence on the Earth's space environment and climate via its magnetic field, irradiation and energetic particles. Long-term and reliable historical datasets of solar and stellar activity indices are crucial for understanding the variations and predicting the future solar cycle. Cosmogenic and radionuclides can extend our knowledge of solar variations back to the Holocene. There are a number of important and hot issues relevant to the evolution of solar activity and variability. These include, how to build up long-term consistent datasets, e.g., sunspot number and solar irradiance, how to realistically reconstruct the physics parameters, e.g., interior convection spectrum and photospheric open flux, based on the records, how to understand the relations among different indices, how to model the solar cycles based on the observed data. Furthermore, the progress in the understanding of the stellar variability and activity cycles helps us to understand the solar cycle over a much wider sample of parameters. This symposium brought together scientists from diverse, interdisciplinary areas such as solar, stellar, space and heliospheric physics to review the status of the different long-term datasets available across the globe. It provided a platform to exchange ideas on the understanding of solar long-term behavior, its effects and prediction. The Kodaikanal Observatory has observed the sun at wavelengths WL, Ca-II K, H-alpha since 1904. The digitization process has been completed recently. During the conference through a formal announcement the entire data was opened to the global community. A demo session was also arranged for the introduction to the data archive, how to download the data etc. Thus IAU Symposium 340 enabled a comparison of recent results from a wide variety of scientific disciplines. A number of public outreach programs and a 1-day training session, on Saturday 24th February for the benefit of university students was organized. About 80 undergraduate students attended the school.

List of Participants

Name	Affiliation	Country	Gender
Aabha Monga	Aryabhata Research Institute of Observational Sciences	India	female
Aaron Birch	Max Planck Institute for Solar System Research	Germany	male
Abhishek Kumar Srivastava	Indian Institute of Technology, Varanasi	India	male
Abraham C. -L. Chian	National Institute for Space Research (INPE), Brazil	Brazil	male
Aimee Norton	Stanford University	USA	female
Ajit K Kembhavi	IUCAA	India	Male
Akash Chakraborty	Springer India Pvt. Ltd.	India	male
Aleksandr Kutsenko	Crimean Astrophysical Observatory RAS	Russia	male
Aleksandra Anatolyevna Osipova	Pulkovo Observatory	Russia	female
Alemayehu Mengesha Cherkos	Addis Ababa University, Institute of Geophysics Space Science and Astronomy	Ethiopia	male
Alexander Shapiro	Max Planck Institute for Solar System Research	Germany	male
Alexei Pevtsov	National Solar Observatory	USA	male
Ali Kilcik	Akdeniz University, Antalya-Turkey	Turkey	male
Amar Deo Chandra	Center of Excellence in Space Sciences	India	male
Amareswari K. Ambily S.	ISRO Satellite Centre, Bengaluru UNIVERSITY COLLEGE, THIRUVANANTHAPURAM	India	female
Amrita Prasad	Jadavpur University, Kolkata	India	female
Anand Joshi	National Astronomical Observatory of Japan	Japan	male
Andreas Lagg	Max Planck Institute for Solar System Research	Germany	male
Andrei Tlatov	Kislovodsk mountain astronomical station of the Pulkovo observatory	Russia	male
Andres Munoz-Jaramillo	SouthWest Research Institute	USA	male
Angela Santos	Space Science Institute	USA	female
Ansgar Reiners	Georg-August-Universität Göttingen	Germany	male
Anshu Kumari	Indian Institute of Astrophysics	India	female
Antoine Strugarek	CEA Saclay / DAp	France	male

Aranya S.	S.N College Sivagiri Varkala	India	female
Arnab Basak	Center of Excellence in Space Sciences India, Indian Institute of Science Education and Research Kolkata	India	male
Arnab Rai Choudhuri	Indian Institute of Science	India	male
Asheesh Bhargawa	University of Lucknow	India	male
Ashwini S Naidu	Vemana Institute of Technology	India	female
Atul Mohan	National Centre for Radio Astrophysics - Tata Institute of Fundamental Research	India	male
Aveek Sarkar	Physical Research Laboratory, Ahmedabad	India	male
Avijeet Prasad	Physical Research Laboratory	India	male
Baburaj M. S.	Christian College, Kattakada	India	male
Bernhard Fleck	European Space Agency	USA	male
Bibhuti Kumar Jha	Indian Institute of Astrophysics	India	male
Bidya Binay Karak	High Altitude Observatory	USA	male
Bindesh Tripathi	St. Xavier's College, Kathmandu	Nepal	male
Binod Adhikari	St. Xavier's College, Kathmandu	Nepal	male
Bogyeong Kim	Chungnam National University	South Korea	female
Brajesh Kumar	Udaipur Solar Observatory / Physical Research Laboratory	India	male
Brigitte Schmieder	Observatoire de Paris	France	female
Cesare Scalia	Universita' di Catania	Italy	male
Chandan Joshi	JECRC University Jaipur	India	Male
Chia-Hsien Lin	Graduate Institute of Space Science, National Central University	Taiwan	female
Chi-Ju Wu	Max Planck Institute for Solar System Research	Germany	female
Cui Kaiming	National Astronomical Observatories of China	China	female
Daniel Wagner	Astrophysical Institute and University Observatory, Friedrich-Schiller-University, Jena	Germany	male
Dattaraj Dhuri	Tata Institute of Fundamental Research, Mumbai	India	male
Debi Prasad Choudhary	California State University Northridge	USA	male
Deepak Pandey	KUMAUN UNIVERSITY	India	male
Derek Buzasi	Florida Gulf Coast University	USA	male
Dibyendu Nandi	Center of Excellence in Space Sciences India, Indian Institute of Science Education and Research Kolkata	India	male
Dilyara Baklanova	Crimean Astrophysical Observatory	Russia	female
Dipankar Banerjee	Indian Institute of Astrophysics	India	male
Divya Oberoi	National Centre for Radio Astrophysics - Tata Institute of Fundamental Research	India	male

Donald Morton	Herzberg Astronomy and Astrophysics National Research Council	Canada	male
Drabindra Pandit	St. Xavier's College, Tribhuvan University, Kathmandu	Nepal	male
Durgesh Tripathi	Inter-University Centre for Astronomy and Astrophysics	India	male
Eliana M. Amazo-Gomez	Max Planck Institute for Solar System Research	Germany	female
Emre Isik	Max Planck Institute for Solar System Research	Germany	male
Frédéric Clette	Royal Observatory of Belgium	Belgium	male
G. GOPKUMAR	UNIVERSITY OF KERALA	India	male
Gabriel Giono	KTH-Royal Institute of Technology	Sweden	male
Gerry Doyle	Armagh Observatory and Planetarium	UK	male
Gopal Hazra	Indian Institute of Science	India	male
Greg Kopp	Univ. of Colorado / LASP	USA	male
Han He	National Astronomical Observatories, Chinese Academy of Sciences	China	male
Hannah Schunker	Max Planck Institute for Solar System research	Germany	female
Hariharan Krishnan	National Centre for Radio Astrophysics - Tata Institute of Fundamental Research	India	male
Haritha V G	UNIVERSITY COLLEGE, THIRUVANANTHAPURAM	India	female
Hemamalini G E	Vemana Institute of Technology	India	female
Himanshu Pandit	SRM UNIVERSITY	India	male
Hiremath K M	Indian Institute of Astrophysics	India	male
Ilaria Ermolli	INAF Osservatorio Astronomico di Roma	Italy	female
Ivan Milic	Max Planck Institute for Solar System Research	Germany	male
J. Javaraiah	Formerly in Indian Institute of Astrophysics, Bengaluru	India	male
J. Todd Hoeksema	Stanford University	USA	male
Jagdev Singh	Formerly at Indian Institute of Astrophysics	India	male
Jayalekshmi G. L.	University of Kerala, Thiruvananthapuram	India	female
Jie Jiang	School of Space and Environment, Beihang University	China	female
Jinee Gogoi	Dibrugarh University	India	female
Jishnu Bhattacharya	Tata Institute of Fundamental Research	India	male
Joe Zender	European Space Agency / European Space Research and Technology Centre	Netherlands	male
Joshi Yogeshkumar Dileepkumar	Poornima University, Jaipur	India	male

Julian David	Harvard-Smithsonian Center for Astrophysics	USA	male
Alvarado Gomez	Max Planck Institute for Solar System Research	Germany	male
Jyri Lehtinen	Indian Institute Of Astrophysics	India	female
K. R. Varsha	Indian Institutes of Science Education and Research, Pune	India	male
K. Sasikumar Raja	Astronomical Observatory, Kyoto University	Japan	male
Kazunari Shibata	National Solar Observatory	USA	female
Kiran Jain	Kyoto University	Japan	male
Kosuke Namekata	Tata Institute of Fundamental Research	India	male
Krishnendu Mandal	Eötvös University, Budapest	Hungary	male
Kristof Petrovay	Central observatory of RAS	Russia	female
Kseniya	C. U. Shah university, Surendranagar	India	female
Kunjal Dave	Institute of Science, BHU, Varanasi	India	Male
Kunwar Alkendra Pratap Singh	Indian Institute of Astrophysics	India	female
Lalitha Sairam	Center of Excellence in Space Sciences - Indian Institutes of Science Education and Research, Kolkata	India	female
Lekshmi B.	Observatoire de la CÃ´te d'Azur	France	male
Lionel BIGOT	National Astronomical Observatories, Chinese Academy of Sciences	China	male
Liu Suo	LATMOS/IPSL/CNRS/UVSQ	France	male
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Maarit Käpylä	Space Research Centre PAS (CBK PAN)	Poland	male
Maciej Bzowski	NASA	USA	female
madhulika guhathakurta	OSMANIA UNIVERSITY	India	male
Mahender Aroori	KUMAUN UNIVERSITY NAINITAL	India	male
Mahesh Chandra Mathpal	Islamic University of Science and Technology, Awantipora, Pulwama	India	male
Malik Abdul Waheed	Lancers Army School, Surat	India	male
Manan Agrawal	VEMANA INSTITUTE OF TECHNOLOGY	India	male
Manish D. V.	Indian Institute of Astrophysics	India	male
Manjunath Hegde	University of Chicago, Adler Planetarium	USA	female
Maria A Weber	Max Planck Institute for Solar System Research	Germany	female
Mariangela Viviani	University of Nice-Sophia Antipolis	France	female
Marianne Faurobert	University of the Philippines, Baguio	Philippines	female
Marielle R. Eduardo			

Martin Snow	University of Colorado / LASP	USA	male
Martina Exnerová	Astronomický ústav AV ČR	Czech Republic	female
Marzena A. Kubiak	Space Research Centre PAS (CBK PAN)	Poland	female
Mathew Owens	University of Reading	UK	male
Mausumi Dikpati	NCAR/High Altitude Observatory	USA	female
Megha A.	Indian Institute of Astrophysics	India	female
Miral Bhatt	C. U. Shah university, Surendranagar	India	female
Mohamed Ismaiel	Helwan University	Egypt	male
Nancy Narang	Indian Institute of Astrophysics	India	female
Nandita Srivastava	Udaipur Solar Observatory, Physical Research Laboratory, Udaipur	India	female
Nat Gopalswamy	NASA Goddard Space Flight Center	USA	male
Natalie Krivova	Max Planck Institute for Solar System Research	Germany	female
Nataliia Shchukina	Main Astronomical Observatory, National Academy of Sciences of Ukraine	Ukraine	female
Navdeep Panesar	NASA Marshall Space Flight Center	USA	female
Nipa J. Bhatt	C U SHAH SCIENCE COLLEGE	India	female
Nisha N. G.	University of Kerala	India	female
P. E. Eapen	KERALA UNIVERSITY	India	male
P. Venkatakrishnan	Udaipur Solar Observatory	India	male
Partha Chowdhury	University of Calcutta	India	male
Parvaiz Ahmad Khan	Islamic University of Science and Technology, Awantipora, Pulwama	India	male
Pete Riley	Predictive Science Inc.	USA	male
PRAMOD KUMAR	JaganNath University, Jaipur	India	male
Pranjali Sarmah	Tezpur University	India	male
Prantika Bhowmik	Center of Excellence in Space Sciences India, Indian Institute of Science Education and Research Kolkata	India	female
Prem Kumar Battula	OSMANIA UNIVERSITY	India	male
Prithvi Raj Singh	A.P.S.UNIVERSITY, REWA	India	male
Priya T G	National Astronomical Observatory of China	China	female
Qi Hao	School of Astronomy and Space Science, Nanjing University	China	male
Qing Gao	National Astronomical Observatories, Chinese Academy of Sciences	China	male
R. Kariyappa	Vemana Institute of Technology	India	male
Rakesh Mazumder	Center of Excellence in Space Sciences - Indian Institutes of Science Education and Research,	India	male

Kolkata			
Ram Sagar	IIA	India	Male
Ramesh Chandra	Kumaun University, Nainital	India	male
Ranadeep Sarkar	Udaipur Solar Observatory, Physical Research Laboratory	India	male
Rangarajan K. E.	Indian Institute of Astrophysics	India	male
Ravindra B.	Indian Institute of Astrophysics	India	male
Reetika Joshi	KUMAUN UNIVERSITY, NAINITAL	India	female
Renzo Ramelli	Istituto Ricerche Solari Locarno (IRSOL)	Switzerland	male
Richard Bogart	Stanford University	USA	male
Ritesh Patel	Indian Institute of astrophysics	India	male
Ritika Solanki	Indian Institute of Technology (BHU), Varanasi	India	female
Robert Cameron	Max Planck Institute for Solar System Research	Germany	male
Robert Leamon	University of Maryland/ NASA GSFC	USA	male
Rohan Eugene Louis	Center of Excellence in Space Sciences - Indian Institutes of Science Education and Research, Kolkata	India	male
Rohit Sharma	National Centre for Radio Astrophysics, Tata Institute of Fundamental Research, Pune	India	male
Roshan Kumar Mishra	Tribhuvan University	India	male
Roshni Atulkar	National Institute of Technical Teachers' Training and Research, Bhopal	India	female
Rutvik Pandit	SRM University	India	male
S. Ananthakrishnan	SP Pune University	India	male
S. P. Gupta	PHYSICAL RESEARCH LABORATORY Navrangpura, Ahmedabad	India	male
Sacha Brun	AIM/Dept. of Astrophysics	France	Male
Sai Krishna E.	DECCAN COLLEGE POST GRADUATE AND RESEARCH INSTITUTE, PUNE	India	male
Salvatore Luigi Guglielmino	Università degli Studi di Catania	Italy	male
Salvatore Mancuso	INAF - Astrophysical Observatory of Torino	Italy	male
Samrat Sen	Indian Institute of Astrophysics	India	male
Sanjay Gosain	National Solar Observatory	USA	male
Sankar Narayan Patra	Jadavpur University, Kolkata	India	male
Santhosh Kumar G.	UNIVERSITY COLLEGE ,THIRUVANANTHAPURAM	India	male
Sarbani Basu	Yale University	USA	female
Seema C. S.	Prince P R University College, Thiruvananthapuram	India	female

Senthamizh Pavai Valliappan	Leibniz Institute for Astrophysics Potsdam, Germany	Germany	female
Shashanka R Gurumath	VIT University, Vellore	India	male
Shravan Hanasoge	Tata Institute of Fundamental Research	India	male
Siddharth Madan	Nehru Planetarium	India	male
Sindhuja	Udaipur Solar Observatory	India	female
Siraj S Hasan	Formerly IIAP	India	Male
Sonia Kaushik	Jiwaji University, Vidya Vihar, Gwalior	India	female
Soumya Roy	HALDIA INSTITUTE OF TECHNOLOGY, HALDIA	India	female
Soumyaranjan Dash	Center of Excellence in Space Sciences	India	male
Souvik Bose	Indian Institute of Astrophysics	India	male
Sowmya Krishnamurthy	Max Planck Institute for Solar System Research	Germany	female
Sreejesh P. S.	Indian Institute of Science Education and Research, Kolkata	India	male
Srijan Bharati Das	Indian Institutes of Science Education and Research, Kolkata	India	male
Subhajeet Karmakar	Aryabhata Research Institute of Observational Sciences	India	male
Subhamoy Chatterjee	Indian Institute of Astrophysics	India	male
Subhash Chandra Kaushik	Government PG College, Datia	India	male
Sudheer Kumar Mishra	Indian Institute of Technology, Varanasi	India	male
Sudip Mandal	Indian Institute of Astrophysics	India	male
Suji K. J.	University of Kerala	India	male
Sujith Kumar	MS Ramiah University of Applied Science	India	male
Suman Panda	Indian Institute of Science Education and Research, Kolkata	India	female
Sumesh Gopinath	University College, Thiruvananthapuram	India	male
Sunil Kumar Morais C.	M S UNIVERSITY, THIRUNELVELI	India	male
Surajit Mondal	National Centre for Radio Astrophysics - Tata Institute of Fundamental Research	India	male
Sushant Mahajan	Georgia State University, Atlanta, GA	USA	male
Sushma G. N.	Bangalore university	India	female
Sushree Sangeeta Nayak	Udaipur Solar Observatory, Physical Research Laboratory.	India	female
Susovan Chowdhury	Jadavpur University, Kolkata	India	male
Syed Ibrahim M.	Madurai Kamaraj University	India	male
T. E. Girish	University College ,Trivandrum	India	male
Takahito Sakaue	Kwasan and Hida Observatories, Kyoto University	Japan	male

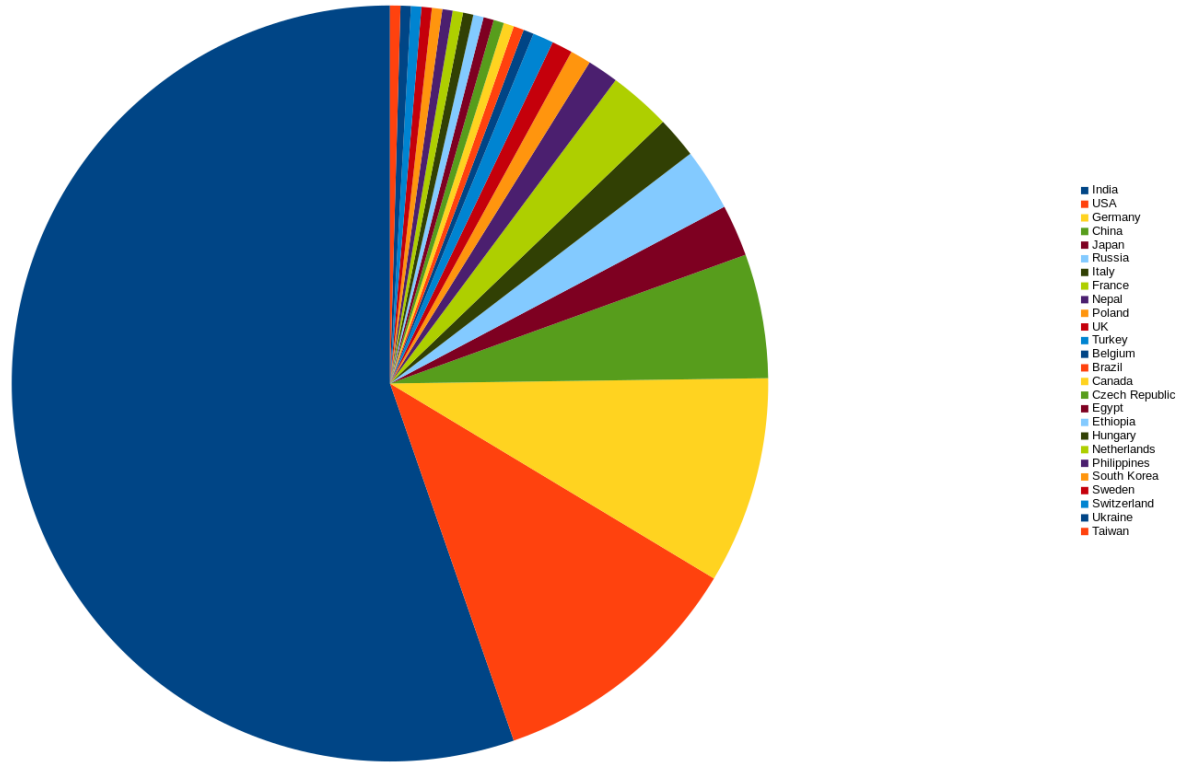
Tanmoy Samanta	Peking University	China	male
Theodosios Chatzistergos	Max Planck Institute for Solar System Research	Germany	male
Travis Metcalfe	Space Science Institute	USA	male
Umang V. Pandya	Pacific Academy Of Higher Education And Research University, Udaipur	India	male
Vaibhav Pant	Indian Institute of astrophysics	India	male
Valentina Abramenko	Crimean Astrophysical Observatory	Russia	female
Varnana M Kumar	University College Trivandrum	India	female
Veena Manohar Choithani	Kadi Sarva Vishwavidyalaya	India	female
Veronika Witzke	Max Planck Institute for Solar System Research	Germany	female
Vincent Boening	Max Planck Institute for Solar System Research	Germany	male
Vipin Das V.	UNIVERSITY COLLEGE, THIRUVANANTHPURAM	India	male
Vivek Kumar Singh	Sam Higginbottom Institute of Agriculture, Technology and Sciences	India	male
Volkan Sarp	Akdeniz University, Antalya-Turkey	Turkey	male
Wageesh Mishra	University of Science and Technology of China	China	male
wahab uddin	Aryabhata Research Institute of observational sciences (ARIES), Nainital	India	Male
Yamini	Indian Institute of Technology, Varanasi	India	female
Yan Yan	National Astronomical Observatories of Chinese Academy of Sciences	China	male
Yanghuiqin	National Astronomical Observatories of China	China	male
Yuto Bekki	The University of Tokyo	Japan	male
Zhang Xuefei	Yunnan Observatories, CAS	china	female

Total Number of registered participants 233

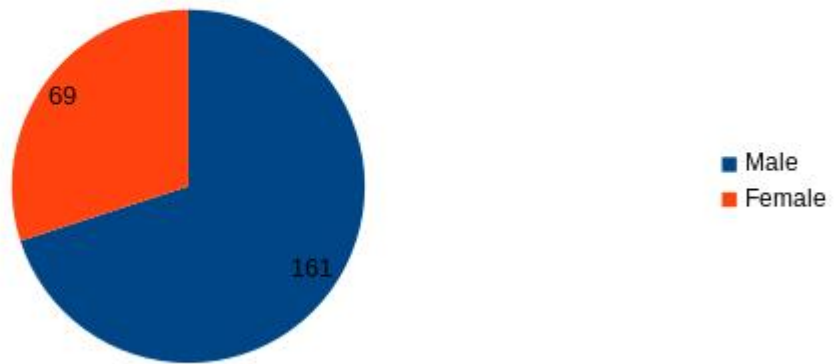
Total number of participants attended 226

Total number of Male Participants 157 and Female Participants 69

Countrywise Participants of IAUS 340



Total Number of Participants for IAUS 340



(v) An Executive Summary of the Meeting

IAU Symposium 340 on “Long term datasets for the understanding of solar and stellar magnetic cycles” was held in Jaipur, India – February 18 - 24, 2018. The symposium provided an ideal opportunity for scientists from diverse, interdisciplinary areas such as solar, stellar, space and heliospheric physics to review the status of the different long-term datasets available across the globe. The symposium provided an excellent platform to exchange ideas on the on the understanding of solar long-term behavior, its effects and prediction. The Kodaikanal Observatory has observed the sun at wavelengths WL, Ca-II K, H-alpha since 1904. The digitization process has been completed recently and raw and calibrated data was made available to the global community through an announcement during the meeting. IAU Symposium 340 enabled a comparison of recent results from a wide variety of scientific disciplines. There were eight sessions with 25 invited talks and 46 contributed presentations. There were 153 poster presentations and dedicated poster sessions were allotted for each day. Each session also attracted poster awards for young scientists. A total number of 233 registered participants attended the symposium, with 157 male and 69 female candidates from 26 different countries across the globe. All the presentation files are now posted at the conference website at

<https://www.iiap.res.in/iaus340/Home>. There were several education and outreach programs conducted during the conference, including a visit for the conference delegates to the Jantar Mantar, a world heritage site. There were workshops organized for the tourist guides with the theme of understanding the usage of the historical observatory instruments through Positional Astronomy observations. A full day workshop on computer based data analysis on long-term solar data sets was also organized for undergraduate and graduate students on the last day of the conference. 90 students attended this workshop. Nat Gopalswamy also delivered a public lecture titled “Our life-giving star, the Sun and its dark side”.

List of Recipients of IAU Travel Grant

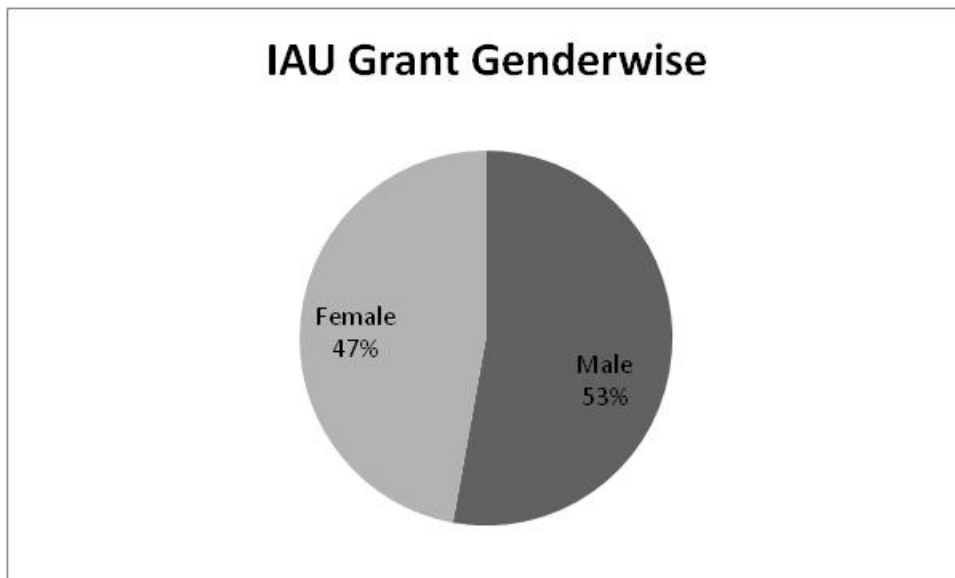
-Stating the amount received, country and gender

Family Name	First Name	Gender	Country of Work	Grant amount awarded (€)
Abramenko	Valentina	Female	Russia	500
Adhikari	Binod	Male	Nepal	400
Amazo-Gomez	Eliana	Female	Germany	400
Baklanova	Dilyara	Female	Russia	550
Bhowmik	Prantika	Female	India	175
Chatterjee	Subhamoy	Male	India	175
Chatzistergos	Theodosios	Male	Germany	500
Cherkos	Alemayehu	Male	Ethiopia	700
Chian	Abraham	Male	Brazil	500
Chowdhury	Partha	Male	India	175
Eduardo	Marielle	Female	Philippines	550
G. L.	Jayalekshmi	Female	India	250
Gongalves Dos Santos	Angela	Female	USA	600
Guglielmino	Salvatore	Male	Italy	400
Gurumath	Shashank	Male	India	175
Hazra	Gopal	Male	India	175
Hegde	Manjunath	Male	India	250
Isik	Emre	Male	Germany	400
Ismaiel	Mohamed	Male	Egypt	400

Javaraiah	Javaraiah	Male	India	375
Karak	Bidya Binay	Male	USA	600
Kaushik	Sonia	Female	India	175
Kilcik	Ali	Male	Turkey	500
Kutsenko	Aleksandr	Male	Russia	500
Lin	Chia-Hsien	Female	Taiwan	500
Liu	Suo	Male	China	400
Mahajan	Sushant	Male	USA	600
Mandal	Sudip	Male	India	175
Mishra	Wageesh	Male	China	400
Mishra	Roshan	Male	Nepal	400
Naidu	Ashwini	Female	India	175
Narang	Nancy	Female	India	175
Osipova	Aleksandra	Female	Russia	500
P S	Sreejesh	Male	India	175
Sairam	Lalitha	Female	India	200
Samanta	Tanmoy	Male	China	600
SARP	Volkan	Male	Turkey	500
Scalia	Cesare	Male	Italy	400
Schmieder	Brigitte	Female	France	400
Schunker	Hannah	Female	Germany	500
Shchukina	Nataliia	Female	Ukraine	500
Singh	Jagdev	Male	India	325
Solanki	Ritika	Female	India	175
Thambaje Gopalan	Priya	Female	China	350
Tlatov	Andrey	Male	Russia	500
Tlatov	Kseniya	Female	Russia	500
Valliappan	Senthamizh Pavai	Female	Germany	400
Venkatakrishnan	Parameswaran	Male	India	325
Witzke	Veronika	Female	Germany	500
Wu	Chi-Ju	Female	Germany	400
	Sushma G N	Female	India	150
	Yamini	Female	India	175
	Hemamalini	Female	India	175

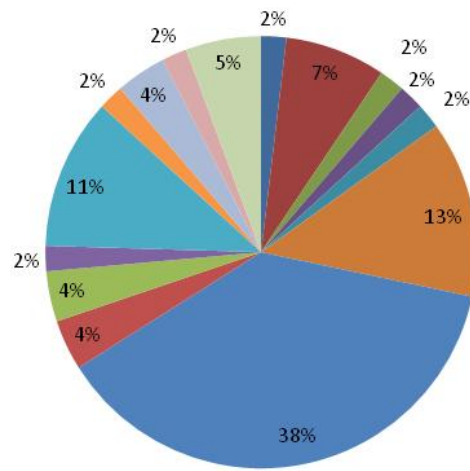
20000

Total : 53 awards Male 28 , Female 25 15 countries

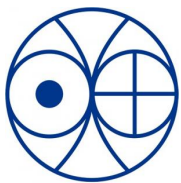


IAU Grant countrywise

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Date and place: 31st May 2018, Bangalore, India

Signature of SOC Chairperson:
(Dipankar Banerjee)