

Division E Science Meeting at the XXIXth IAU General Assembly, Honolulu, USA 7 and 10 August 2015

General Information

Division E (Sun and Heliosphere), as all other IAU Divisions, will have a dedicated Division Meeting in Honolulu. Division Meeting is a scientific meeting covering all research fields relevant for our Division.

The Meeting is scheduled for Friday, August 7 and Monday, August 10 - see the detailed program below. All Division Meetings will run in parallel, but no other meetings (scientific or business) will be scheduled for these time slots.

The joint Business Meeting of Division E, its Commissions and Working Groups is on 7 August 2015 between 18:00-19:30.

Scientific Organizing Committee

The SOC of the Division Meeting consists of the members of the Division Steering Committee: Lidia van Driel-Gesztelyi (chair), Yihua Yan, Gianna Cauzzi, Peng-Fei Chen, Arnab Rai Choudhuri, Marc L. DeRosa, Lyndsay Fletcher, Sarah Gibson, Ingrid Mann, Karel Schrijver, Rudolf von Steiger.

Scientific Program

Location: **Room 314**, Hawaii Convention Center,
Time: **Friday, 7 August** (10:30 - 19:30)

DE.1. Solar Interior and Dynamo, Division Oral Session,
Chair: Marc DeRosa

10:30-11:00 AM	DE.1.01. Seismology of Convection in the Sun <u>S. Hanasoge</u> (<i>invited</i>)
11:00-11:30 AM	DE.1.02. The Solar/Stellar Connection <u>A. Brun</u> (<i>invited</i>)
11:30-11:45 AM	DE.1.03. Magnetic Helicity in Solar Dynamo Simulations <u>M. Miesch</u> ; <u>K.C. Augustson</u> ; <u>M. Zhang</u>
11:45-12:00 AM	DE.1.04. Grand Minima and Equatorward Propagation in a Cycling Stellar Convective Dynamo <u>K.C. Augustson</u> ; <u>A. Brun</u> ; <u>M. Miesch</u> ; <u>J. Toomre</u>
12:00-12:15 PM	DE.1.05. Magnetic Flux Concentrations in Stratified Turbulent Plasma Due to Negative Effective Magnetic Pressure Instability <u>S. Jabbari</u>
12:15-12:30 PM	DE.1.06. Digital tabulation of historical sunspot field strength measurements from the Mount Wilson Observatory <u>A. Pevtsov</u> ; <u>A. Tlatov</u> ; <u>L. Bertello</u> ; <u>R. Ulrich</u>

DE.2. Photosphere and the Solar Cycle, Division Oral Session,
Chair: Alexei Pevtsov

2:00-2:30 PM	DE.2.01. Magnetic Flux Emergence in the Solar Atmosphere <u>M. Cheung</u> (<i>invited</i>)
2:30-2:40 PM	DE.2.02. 3D Tracking of small-scale convective upflows <u>B. Lemmerer</u> ; A. Hanslmeier; A. Veronig; H. Muthsam; I. Piantschitsch
2:40-2:50 PM	DE.2.03. Rising coronal loops in a 3D-MHD model and the time evolution of the magnetic topology of a solar active region <u>P.A. Bourdin</u>
2:50-3:20 PM	DE.2.04. The new Sunspot and Group Numbers: a full recalibration <u>F. Clette</u> ; L. Svalgaard; E.W. Cliver; J.M. Vaquero; L. Lefèvre (<i>invited</i>)
3:20-3:30 PM	DE.2.05. 3D Global Coronal Density and Magnetic Field Structures during Solar Minimum and Maximum. <u>M. Kramar</u> ; V. Airapetian

DE.3. Chromosphere and Corona, Division Oral Session,
Chair: Gianna Cauzzi

4:00-4:30 PM	DE.3.01. Physics of the Solar Chromosphere: Beyond the Ideal MHD Description <u>J. Leake</u> (<i>invited</i>)
4:30-4:50 PM	DE.3.02. Acoustic Waves Generated by a Disturbance in a Gravitationally-Stratified Medium <u>J. Chae</u> ; P. Goode
4:50-5:10 PM	DE.3.03. Sunquakes and their relationship with coronal magnetic topology <u>L. Green</u> ; S. Zharkov; S. Matthews; V. Zharkova (<i>invited</i>)
5:10-5:25 PM	DE.3.04. Statistical analysis of supersonic downflows in sunspot penumbrae. <u>H. Kim</u> ; A. Lagg; S.K. Solanki; G. Narayan; M.v. Noort; K. Kim
5:25-5:40 PM	DE.3.05. High-resolution fine-structure synthetic imaging of an entire prominence using 3D whole-prominence fine structure modelling S. Gunar; D. Mackay; <u>P. Heinzel</u> ; U. Anzer
5:40-6:00 PM	DE.3.06. Magnetism Matters: Coronal Magnetometry Using Multi-Wavelength Polarimetry <u>S.E. Gibson</u>

DE.4. Business Meeting of Division E and its Commissions
Chair: Lidia van Driel-Gesztelyi

6:05-6:30 PM	Division E President's report, incl. WG reports and the
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	status of the Debrecen Photoheliographic Results Catalog <u>L. van Driel-Gesztelyi</u>
6:30-6:40 PM	Commission 10 President's report Karel Schrijver; <u>Lyndsay Fletcher</u>
6:40-6:50 PM	Commission 12 President's report <u>Gianna Cauzzi</u>
6:50-7:00 PM	Commission 49 President's report <u>Ingrid Mann</u>
7:00-7:10 PM	Introduction to Commission C.E1 <u>Natalie Krivova</u>
7:10-7:20 PM	Introduction to Commission C.E2 <u>Lyndsay Fletcher</u>
7:20-7:30 PM	Introduction to Commission C.E3 <u>Ingrid Mann</u>

DEp.1. **Division E Poster Session I.**

Location: **Exhibit Hall 1**, Hawaii Convention Center,

Time: 08:30-10:00 AM & 6:00 PM-7:30 PM

DEp.1.01. 6 Years After the Inauguration of the Heliumeter at Observatório Nacional A.H. Andrei; V.A. D'Avila; E. Reis Neto; J.L. Penna; S.C. Boscardin; C. Sigismondi
DEp.1.02. How Well Can a Footpoint Tracking Method Estimate the Magnetic Helicity Influx during Flux Emergence? G. Choe; S. Kim; K. Kim; J. No
DEp.1.03. An Ellerman bomb observed by NST and IRIS Y. Kim; V. Yurchyshyn; K. Ahn; I. Cho; J. Lee; Y. Park; P. Goode
DEp.1.04. Two-fluid 2.5D code for simulations of small scale magnetic fields in the lower solar atmosphere I. Piantschitsch; U. Amerstorfer; J. Thalmann; A. Hanslmeier; B. Lemmerer
DEp.1.05. Synoptic program to measure the evolution of the photospheric magnetic field during a solar cycle R. Ramelli; M. Bianda; S. Berdyugina; J. Stenflo; L. Belluzzi
DEp.1.06. Atlas of the center to limb variation of the solar intensity spectrum. R. Ramelli; M. Setzer; M. Engelhard; M. Bianda; J. Stenflo; G. Küveler; R. Plewe
DEp.1.07. The statistical properties of vortex flows in the solar atmosphere S. Wedemeyer; Y. Kato; O. Steiner
DEp.1.08. Plans to Observe the 2017 Total Solar Eclipse from near the Path Edges D.W. Dunham; R. Nugent; K. Guhl; H. Bode
DEp.1.10. Report of the IAU Working Group on Solar Eclipses J.M. Pasachoff
DEp.1.13. Magnetic structure and origin of counter-streaming mass flows in solar prominences Y. Shen
DEp.1.14. The formation and structure of solar active-region filaments X. Yan
DEp.1.15. Phase relationship between the relative sunspot numbers and solar mean magnetic field Z. Yin; Y. Han

Location: **Room 314**, Hawaii Convention Center,
 Time: **Monday, 10 August** (8:30 - 18:00)

DE.5. **Corona**, Division Oral Session,
 Chair: Sarah Gibson

8:30-8:40 AM	DE.5.01. Nonlinear Wave Coupling of Torsional Alfvén Waves in the Solar Atmosphere <u>Z. Musielak</u> ; K. Murawski
8:40-8:50 AM	DE.5.02. Coronal Seismology: Inferring Magnetic Fields and Exploring Damping Mechanisms <u>R. McAteer</u> ; J. Ireland
8:50-9:00 AM	DE.5.03. Quantitative Evidence for Wave Heating of the Solar Corona <u>D.W. Savin</u> ; M. Hahn
9:00-9:10 AM	DE.5.04. A New Method for Coronal Magnetic Field Reconstruction S. Yi; G. Choe; D. Lim
9:10-9:30 AM	DE.5.05. Recent Highlights on Solar Coronal Abundances from Hinode <u>D. Brooks</u> (<i>invited</i>)
9:30-9:40 AM	DE.5.06. What Magnetic Structures Harbor Coronal Loop Plasmas? D. Lim; G. Choe; S. Yi
9:40-9:50 AM	DE.5.07. Direct observations of tether-cutting reconnection during a major solar event in AR 11990 <u>H. Chen</u>
9:50-10:00 AM	DE.5.08. Observation of a Low Coronal Shock Wave Pushed by a Hot Flux Rope in the EUV by the SDO/AIA <u>S. Ma</u> ; H. Chen

DE.6. **Coronal and Heliospheric Transients**, Division Oral Session,
 Chair: Lyndsay Fletcher

10:30-10:50 AM	DE.6.01. Numerical Modeling of Single and Sympathetic Solar Eruptions <u>T. Török</u> (<i>invited</i>)
10:50-11:20 AM	DE.6.02. Global seismology of the solar corona using "EIT waves" <u>D. Long</u> (<i>invited</i>)
11:20-11:50 AM	DE.6.03. Heliospheric Propagation of Coronal Mass Ejections: A Review <u>N. Lugaz</u> ; C. Farrugia; N. Schwadron; W.B. Manchester (<i>invited</i>)
11:50-12:10 PM	DE.6.04. Flare-related radio emission: a kinetic point-of-view <u>C. Briand</u> (<i>invited</i>)
12:10-12:30 PM	DE.6.05. Dust and sungrazing comets and their interaction with the solar wind <u>I.B. Mann</u> ; N. Meyer-Vernet; A. Czechowski; G. Jones; M. Bzowski (<i>invited</i>)

DE.7. Solar Wind and Space Weather, Division Oral Session,
Chair: Yihua Yan

2:00-2:30 PM	DE.7.01. In situ observations of fundamental characteristics of the Sun and astrophysical plasmas <u>T.H. Zurbuchen</u> ; E. Landi (<i>invited</i>)
2:30-3:00 PM	DE.7.02. Numerical Study of Solar Storms From the Sun to Earth X. Feng
3:00-3:15 PM	DE.7.03. Heliospheric and geomagnetic modulation of galactic cosmic rays under quiet and disturbed interplanetary conditions during solar cycles 20-23 <u>K.C. Okpala</u>
3:15-3:30 PM	DE.7.04. Science-Ready Data Production in the DKIST Data Center <u>K. Reardon</u> ; S. Berukoff; T. Hays; D. Spiess; F. Watson

DE.8. Solar Instrumentation, Division Oral Session,
Chair: Lidia van Driel-Gesztelyi

4:00-4:20 PM	DE.8.01. Daniel K. Inouye Solar Telescope: Overview and Status <u>T. Rimmele</u> ; J. McMullin; M. Warner; S. Craig; F. Woeger; A. Tritschler; R. Cassini; J. Kuhn; H. Lin; W. Schmidt; S. Berukoff; K. Reardon; P. Goode; M. Knoelker; R. Rosner; M. Mathioudakis; D. TEAM (<i>invited</i>)
4:20-4:40 PM	DE.8.02. Daniel K. Inouye Solar Telescope (DKIST) Critical Science Plan <u>M. Rast</u> (<i>invited</i>)
4:40-5:00 PM	DE.8.03. Advance on solar instrumentation in China <u>Y. Yan</u> (<i>invited</i>)
5:00-5:20 PM	DE.8.04. Aditya: India's First Observatory in Space to Study the Sun <u>D. Nandi</u> (<i>invited</i>)
5:20-5:40 PM	DE.8.05. CLASP: A UV Spectropolarimeter on a Sounding Rocket for Probing the Chromosphere-Corona Transition Region <u>R. Ishikawa</u> ; R. Kano; A. Winebarger; F. Auchere; J. Trujillo Bueno; T. Bando; N. Narukage; K. Kobayashi; Y. Katsukawa; M. Kubo; S. Ishikawa; G. Giono; S. Tsuneta; H. Hara; Y. Suematsu; T. Shimizu; T. Sakao; K. Ichimoto; J. Cirtain; B. De Pontieu; R. Casini; R. Manso Sainz; A. Asensio Ramos; J. Stepan; L. Belluzzi; M. Carlsson (<i>invited</i>)
5:40-6:00 PM	DE.8.06. Solar Observations with the Atacama Large Millimeter/submillimeter Array <u>S. Wedemeyer</u> (<i>invited</i>)

DEp.1. **Division E Poster Session II.**

Location: **Exhibit Hall 1**, Hawaii Convention Center,

Time: 6:00 PM-7:30 PM

DEp.2.01. Characterizing the Properties of Coronal Magnetic Null Points G. Barnes; M. DeRosa; E. Wagner
DEp.2.02. A Prestudy for the Development of a Compact Coronagraph S. Bong; H. Yang; K. Cho; K. Cho; E. Lim; Y. Park; J. Chae
DEp.2.03. Plasma Heating to Super-Hot Temperatures (>30 MK) in the August 9, 2011 Solar Flare I. Sharykin; A. Struminsky; I. Zimovets
DEp.2.04. Dynamics of electric currents, magnetic field topology and helioseismic response of a solar flare I. Sharykin; A. Kosovichev
DEp.2.05. Ultimate Spectrum of Solar/Stellar Cosmic Rays A. Struminsky
DEp.2.06. Active region plasma outflows as sources of slow/intermediate solar wind L.M. van Driel-Gesztelyi
DEp.2.07. Shapes of 20NE De-Excitation Line in Solar Flare W. Chen; W. Gan
DEp.2.08. 3D Observation of the Global Coronal Magnetic Field by Vector Tomography using the Coronal Emission Linear Polarization Data. M. Kramar; H. Lin; S. Tomczyk
DEp.2.09. On the Nature of the EUV Late Phase of Solar Flares Y. Li; M. Ding; Y. Guo; Y. Dai
DEp.2.10. Utilize the SpareX satellite to explore the energy spectrum "break" of the CME-driven shock X. Wang