

## J. T. Hoeksema – Presentations – 2005-2022

### 2022

#### 2022 Fall AGU Meeting; Chicago, IL & Online, 14-18 Dec, 2022

*What Drives the Solar Cycle? Science Strategy for the COFFIES DRIVE Science Center*, J. Todd Hoeksema and the COFFIES Baristas, SH15D-1513

*The Sun's Global Flows: Differential Rotation*, Sushant S. Mahajan, Lisa A. Upton, H. M. Antia, Sarbani Basu, Marc L. DeRosa, J. Todd Hoeksema, Kiran Jain, Rudolf Komm, Alexei A. Pevtsov, Thierry Roudier, Sushanta C. Tripathy, Roger K. Ulrich, Shea A. Hess Webber, Junwei Zhao, SH15D-1517

*Early laboratory testing of a photonic magnetograph*, Neal Hurlburt, Gopal Vasudevan, Lawrence Shing, Shelbe Timothy, Scott Green, Jumphy Chen, Benn Uoo, J. Todd Hoeksema, SH35A-05

*The Firefly Constellation: Exploring the Heliosphere from the Solar Interior to the Solar Wind*, N. Raouafi, J.T. Hoeksema, J.S. Newmark, S.E. Gibson, A. Vourlides, T.E. Berger, L. Upton, D. Hassler, M. Casti, G.C. Ho, G.M. Mason, A.W. Case, S.T. Lepri, J.T. Vievering, M.C.M. Velli, N.M. Viall, M.K. Georgoulis, J.M. Laming, A. Szabo, S. Bourouaine, V. Krishna Jagarlamudi, J.P. Mason, J.D. Kinnison, J.A. Englander, J.L Shannon, R.M. Perez. SH42B-01.

*Solaris+: A Focused Solar Polar Mission to Achieve High Priority Science Now*, D. Hassler, J.S. Newmark, S.E. Gibson, N.A. Featherstone, N.M. Viall, S. Basu, H.A. Elliott, S. Gosain, J.T. Hoeksema, S.T. Lepri, J. Linker, M.B. Moldwin, A. Munoz-Jaramillo, B.J. Thompson, L. Upton, J Zhao, SH42B-03.

*The Open Flux Problem: The Need for High Latitude Observations*, Jon A. Linker, Pete Riley, Cooper Downs, Ronald M. Caplan, Craig DeForest, Sarah E Gibson, Don Hassler, J Todd Hoeksema, Xudong Sun, Nicholeen M. Viall, W.D. Pesnell, SH42B-05

*Broadening Impacts Program of the COFFIES NASA DRIVE Center: Increasing Diversity through Equity, Inclusion, and Accessibility*, Shea Hess Webber, Bryan Mendez, Jason Jackiewicz J. Todd Hoeksema and the COFFIES DRIVE Science Center Team, ED45B-06.

*Session Organizer: From the Tachocline Through the Convection Zone to the Photosphere and into the Heliosphere: Solar Processes Responsible for Magnetic Activity*. M. Dikpati, J.Todd Hoeksema, and Shea Hess Webber ([SH14B](#), [SH15D](#), [SH22A](#), [SH25B](#), [SH32B](#))

#### TESS 2022: Triennial Earth-Sun Summit, 8-11 August 2022, Bellevue, WA

*4 $\pi$  Heliospheric Observing System (4 $\pi$ -HeliOS) Exploring the Heliosphere from the Solar Interior to the Solar Wind*, N. Raouafi, J.T. Hoeksema, J.S. Newmark, S.E. Gibson, A. Vourlides, T.E. Berger, L. Upton, D. Hassler, M. Casti, G.C. Ho, G.M. Mason, A.W. Case, S.T. Lepri, J.T. Vievering, M.C.M. Velli, N.M. Viall, M.K. Georgoulis, J.M. Laming, A. Szabo, S. Bourouaine, V. Krishna Jagarlamudi, J.P. Mason, J.D. Kinnison, J.A. Englander, J.L Shannon, R.M. Perez, D.

Chattopadhyay, J.P. Mason, M.L., Leary, A. Santo, 124.04

*Inferring Vector Magnetic Fields from HMI Observations of a Solar Plage Region: One-component vs Two-Component Milne-Eddington Inversions*, S.-H. Park, J.T. Hoeksema, Y. Liu, A.B. Griñon-Marin, 125.17

*The COFFIES DRIVE Science Center*, J.T. Hoeksema and the COFFIES Baristas, 125.26 [pdf](#)

*Progress Towards an Ultra-Compact Photonic Magnetograph*, N. Hurlburt, G. Vasudevan, H. Chen, S.B. Yoo and J.T. Hoeksema, 202.04.

#### **44<sup>th</sup> COSPAR Scientific Assembly, 16-24 July 2022, Athens, Greece**

*The Impact of Nonlinear Interactions Between Solar Photospheric Magnetic Fields and Flows on the Evolution of the Polar Fields During Recent Sunspot Cycles*, Marc DeRosa, Lisa A. Upton, Sushant Mahajan, J. Todd Hoeksema. Abstract PolS.1-0013-22; 2022cosp...44.3224D.

*4 $\pi$  Heliospheric Observing System - 4 $\pi$ -HeliOS: Exploring the Heliosphere from the Solar Interior to the Solar Wind*, Nour E. Raouafi, J. Todd Hoeksema, Jeffrey Newmark, Sarah Gibson, Angelos Vourlidas, Thomas Berger, Lisa A. Upton, Donald M. Hassler, Marta Casti, George Ho, Glenn M. Mason, Anthony Case, Susan Lepri, Juliana T. Vievering, Marco Velli, Nicholeen Viall, Manolis K. Georgoulis, J. Martin Laming, Adam Szabo, Sofiane Bourouaine, Vamsee Krishna Jagarlamudi, James Kinnison, Jacob A. Englander, Jackson L. Shannon, Rafael M. Perez, Debarati Chattopadhyay, James P. Mason, Meagan L. Leary, Andy Santo. Abstract D2.5-0016-22; 2022cosp...44.1530R.

*The Solaris Solar Polar MIDEX-Class Mission Concept: Revealing the Mysteries of the Sun's Poles*, Donald M. Hassler, Jeffrey Newmark, Sarah Gibson, Nicholas Featherstone, Nicholeen Viall, Sarbani Basu, David Berghmans, Sanjay Gusain, Louise K. Harra, J. Todd Hoeksema, Jon Linker, Andres Munoz-Jaramillo, Barbara Thompson, Lisa Upton. Abstract D2.5-0014-22, 2022cosp...44.1528H.

#### **National Academy of Sciences Space Weather Operations and Research Infrastructure Workshop, Phase II, Virtual, [Agenda](#), 11-14 April 2022**

*Limitations to Space-Weather and Space-Climate Prediction: Observing and Modeling Needs*, J.T. Hoeksema, Solar Panelist

## **2021**

#### **2021 Fall AGU Meeting; New Orleans, LA & Online, 13-17 Dec, 2021**

*Polar and Large-scale Magnetic Field Patterns in Solar Cycles 25 and Before*, J.T. Hoeksema; SH35A-2035 [PDF](#)

*Kinetic and Magnetic Helicity in Solar Active Regions*, Yang Liu, Rudolf Komm, Nicholas Brummell and J Todd Hoeksema; SH54A-08

*Laboratory Prototype for a Photonic Magnetograph*, Neal E Hurlburt, Gopal Vasudevan, Lawrence Shing, Humphry Chen, Ben Yoo and J Todd Hoeksema; SH35D-2108

*Large Scale Collaborative Science: Lessons Learned from the Phase I COFFIES DRIVE Science Center*, Shea A. Hess Webber<sup>1</sup>, Lisa Upton<sup>2,3</sup>, Andres Munoz-Jaramillo<sup>4</sup>, Todd Hoeksema<sup>5</sup>, Rock I Bush<sup>6</sup> and Dave Lauben; SH55D-1863

*A Comparative Study of Measurements of the Sun's Axisymmetric Flows: A COFFIES Effort*, Lisa Upton, Kiran Jain, Rudolf Komm, Sushant Mahajan, Alexei A Pevtsov, Thierry Roudier, Sushanta C Tripathy, Roger K Ulrich, Junwei Zhao, Sarbani Basu, Ruizhu Chen, Marc L DeRosa, Shea A. Hess Webber, and Todd Hoeksema; SH55D-1871

### **238<sup>th</sup> Meeting of the AAS / Joint with Solar Physics Division; On Line; 7-9 June, 2021**

*Understanding the Consequences Of Fields and Flows in the Interior and Exterior of the Sun (COFFIES)*, J. Todd Hoeksema, Nic Brummell, Rock Bush, Shea Hess Weber, Irina Kitiashvili, Rudi Komm, Alexander Kosovichev, Bryan Mendez, Philip Scherrer, Lisa Upton, Alan Wray, Dan Zevin and the COFFIES Team

### **Heliophysics 2050; On Line, 3-6 May, 2021**

*Solar Heliosphere Constellation*, J. Newmark, D. Hassler, S. Gibson, N. Vial, J.T. Hoeksema, A. Vourlidas (poster)

*Space Weather Modeling and Prediction for Intermediate Time-Scales*, M. Dikpati, R.J. Leamon, J.L. Anderson, B. Belucz, D. Biesecker, G.Bothun, Y. Fan, P.A. Gilman, G. Guerrero, J.T. Hoeksema, I.N. Kitiashvili, A.G. Kosovichev, M. Linkmann, S.W. McIntosh, A.A. Norton, M. Rempel, S.C. Tripathy, L. Upton, H. Wang, S.Wing (Poster)

Expanding the Frontiers, J.T. Hoeksema (Facilitator)

### **43<sup>rd</sup> COSPAR Scientific Assembly, 28 Jan – 4 Feb, 2021**

*The Coronal Global Evolutionary Model: Using HMI Vector Magnetogram and Doppler Data to Determine Coronal Magnetic Field Evolution*, Kazachenko, Maria; Abbett, Bill; Liu, Yang; Fisher, George; Welsch, Brian; Bercik, Dave; DeRosa, Marc; Cheung, Mark; Sun, Xudong; Hoeksema, J. Todd; Lumme, Erkkka; Hayashi, Keiji; Lynch, Benjamin, [2021cosp...43E1785K](#).

## **2020**

### **2020 Fall AGU Meeting; On Line; 1-17 December, 2020**

*COFFIES: Developing a Reliable Physical Model of the Solar Activity Cycle*; J Todd Hoeksema, N. Brummell, R.I. Bush, R. Komm, A.G. Kosovichev, B. Mendez, P.H. Scherrer, L. Upton, A. Wray, D. Zevin; Poster SH002-0007 [pdf](#)

*The Unique and Essential Benefits of a High-Latitude Vantage Point*, J. Todd Hoeksema, Invited SH014-02 [Presentation PDF](#) [Summary PDF](#)

*Understanding Solar Cycle Magnetic Evolution with Properties of Solar Active Regions*; Yang Liu, Todd Hoeksema, Junwei Zhao, Marc L DeRosa, and Xudong Sun; Poster SH002-0015

*Fast Deep Learning-Based Stokes Vector Inversion with Confidence for SDO/HMI*; Richard Higgins, David Fouhey, Spiro K Antiochos, Graham Barnes, Tamas I Gombosi, Todd Hoeksema, K D Leka, Yang Liu, and Peter W Schuck; Poster NG004-0015

### **KIPAC Astrophysics Seminar; Stanford University, 3 December 2020**

COFFIES - Consequences Of Fields and Flows in the Interior and Exterior of the Sun, J. Todd

Hoeksema:

**Space Weather Operations and Research Infrastructure Workshop, Part 1, NASEM Online, 16-17 June, 2020**

Solar and Heliospheric Measurements: Polar and Farside Observations, J. Todd Hoeksema

**2020 EGU Meeting, Online 4-8 May 2020**

The Solaris Solar Polar Mission, D.M. Hassler + 19 incl. T. Hoeksema, 2020EGUGA..2217703H

## **2019**

**AGU 2019 Fall Meeting; San Francisco, CA; 9-13 December 2019**

Ubiquitous imaging of solar photospheric fields using miniature, photonic magnetographs, Hurlburt, N. E.; Chriqui, G.; Thurman, S.; Vasudevan, G.; Shing, L.; Chen, H.; Mobilia, J.; Yoo, B.; Hoeksema, J. T.

Inferring the Sun's Far-Side Magnetic Flux for Operations Using Time-Distance Helioseismic Imaging, S.A. Hess Webber, J. Zhao; R. Chen; J.T. Hoeksema; Y. Liu; M. Bobra; DeRosa, M. L.

**Abilities United/Gatepath; Palo Alto, CA; 22 August, 2019**

Astronomy and the Sun, J. Todd Hoeksema

**234th Meeting of the AAS/SPD Summer Meeting; St. Louis, MO; 9-13 June, 2019**

A Makeover for HMI Magnetic Field Data, J.T. Hoeksema, Y. Lui, P.H. Scherrer and the HMI Science Team Presentation 106.13

Reliably Inferring the Sun's Far-Side Magnetic Flux for Operations Using Time-Distance Helioseismic Imaging - Updates, S.A. Hess Webber, Junwei Zhao, Ruizhu Chen, J.T. Hoeksema, Yang Liu, M. Bobra, M.L. DeRosa Presentation 118.05

**2019 Space Weather Workshop, Boulder, CO; April, 2019**

Reliably Inferring the Sun's Far-Side Magnetic Flux for Operations Using Time-Distance Helioseismic Imaging; Hess Webber, Shea A.; Zhao, Junwei; Chen, Ruizhu; Hoeksema, J. Todd; Liu, Yang; Bobra, Monica; DeRosa, Marc

## **2018**

**AGU 2018 Fall Meeting; Washington, DC; 14-18 December, 2018**

Closing the Books on Cycle 24, J.T. Hoeksema

**SDO 2018: Catalyzing Solar Connections, Thagaste in Ghent Belgium, 29 Oct. - 2 Nov, 2018**

HMI Status Report, J.T. Hoeksema, P.H. Scherrer & the HMI Science Team

Soothing Massage of HMI Magnetic Field Data, J.T. Hoeksema, Y. Liu, X. Sun, P.H. Scherrer, and the HMI Science Team; Poster

**SHINE 2018; Cocoa Beach, FL; 30 July - 3 August, 2018**

Using Sun's Far-Side Images Inferred by the Time-Distance Helioseismic Imaging to Improve Synoptic Maps of Magnetic Field: Importance and Methodology, Yang Liu, Junwei Zhao, J.T. Hoeksema, Ruizhu Chen, Monica Bobra, Shea Hess Webber, Marc DeRosa, Xudong Sun

**TESS 2018 (Triennial Earth-Sun Summit (and SPD), Leesburg, VA, 20-24 May 2018**

Thoughts on Preparing for the Astronomy Decadal and the Solar & Space Physics Mid-Term Assessment, J.T. Hoeksema, Expanded Town Hall Presentation

**Deep Space Gateway Concept Science Workshop, Denver, CO, 27 Feb. - 1 Mar. 2018**

Using the Deep Space Gateway to Build the Next Generation Heliophysics Research Grid A. Vourlidas, G.C. Ho, I.J. Cohen, C.M. Korendyke, S. Tun-Beltran, S.P. Plunkett, J. Newmark, O.C. St Cyr, J.T. Hoeksema

**Science Day at the Kodaikanal Observatory, Kodaikanal, India, 29 February, 2018**

Looking at the Sun - Our Star, J.T. Hoeksema

**Colloquium at the Indian Institute of Astrophysics, Bangalore, India, 27 February, 2018**

Observing the Sun -- Over Long Periods -- 'Mostly' from Space, J.T. Hoeksema

**IAU Symposium 340: Long-term Datasets for the Understanding of Solar and Stellar Magnetic Cycles, Jaipur, India, 19-24 February, 2018**

Long-term Measurement of the Solar Magnetic Field, J.T. Hoeksema

**2017**

**AGU 2017 Fall Meeting; New Orleans, LA; 13-17 December 2017**

Measuring the Large-Scale Solar Magnetic Field, J.T. Hoeksema, P.H. Scherrer, E. Peterson, L. Svalgaard, SH 51C - 2497

Predicting the Magnetic Properties of ICMEs: A Pragmatic View, P. Riley, J. Linker, J.M. Ben-Nun, T. Torok, R.K. Ulrich, C.T. Russell, H. Lai, C.A. de Koning, V.J. Pizzo, Y. Liu, J.T. Hoeksema, SH 31D 08

**L5 Consortium Meeting; Gottingen, Germany; October 2017**

Observing Global Magnetic Field Emergence and Evolution

**Calvin College Science Division Seminar; Grand Rapids, MI; 29 September 2017**

Observing the Sun, J.T. Hoeksema

**48th Meeting of the AAS Solar Physics Division; Portland, OR; 24 August 2017**

Q-Maps of the Solar Corona for 2 Solar Cycles: 1996-2017, J.T. Hoeksema, Y. Liu, X. Sun, V. Titov, Z. Mikic

Investigating the Magnetic Imprints of Major Solar Eruptions with SDO/HMI High-Cadence

Vector Magnetograms, X. Sun, J.T. Hoeksema, Y. Liu, M.D. Kazachenko, R. Chen

## 2016

### AGU 2016 Fall Meeting; San Francisco, CA; 12-16 December 2016

Large-Scale Solar Magnetic Fields - How is Solar Cycle 24 Different? J.T. Hoeksema: SH31B-2459

Q-Maps: A New Synoptic Data Product for Investigating Dynamic Coronal Connectivity, X. Sun, J.T. Hoeksema, Y. Liu, Z. Mikic, V. Titov: SH13C-2312.

Achieving Consistent Vector Magnetic Field Measurements from SDO/HMI, P.W. Schuck, P.H. Scherrer, S. Antiochos, J.T. Hoeksema: SH31B-2575

### 2016 SDO: Unraveling the Sun's Complexity; 17-21 October 2016

Vector Magnetic Field Synoptic Maps from HMI, J.T. Hoeksema, Y. Liu, X. Sun, K. Hayashi

On-orbit Performance and Calibration of the HMI Instrument J.T. Hoeksema, R. Bush, C. Baldner, J. Schou, P. Scherrer, and the HMI Calibration Team

Achieving Consistent Vector Magnetic Field Measurements from SDO/HMI, P.W. Schuck, P.H. Scherrer, S. Antiochos, J.T. Hoeksema

The Asymmetric Polar Field Reversal of Solar Cycle 24, X. Sun, J.T. Hoeksema, Y. Liu, J. Zhao, M. Bobra

### 47th Meeting of the AAS Solar Physics Division; Boulder, CO; 30 May - 3 June 2016

Q-Maps: A New Synoptic Data Product for Investigating Dynamic Coronal Connectivity, X. Sun, J.T. Hoeksema, Y. Liu, Z. Mikic, V. Titov

Unexpectedly Strong Lorentz-Force Impulse Observed During a Solar Eruption, X. Sun, G. Fisher, T. Torok, J.T. Hoeksema, Y. Li, and the CGEM Team

The Processing of Observables Made by the HMI Instrument on SDO, J.T. Hoeksema, J. Schou, S. Couvidat, R.S. Bogart, R. Bush, T.L. Duvall, Y. Liu, A. Norton, P.H. Scherrer

On HMI's Mod-L Sequence: Test and Evaluation, Y. Liu, C. Baldner, R.S. Bogart, R. Bush, S. Couvidat, T.L. Duvall, J.T. Hoeksema, A. Norton, P.H. Scherrer, J. Schou

HMI Calibration Issues - presented at the Splinter Meeting on HMI Calibration Issues, J.T. Hoeksema and the HMI Team

## 2015

### AGU 2015 Fall Meeting; San Francisco, CA; 14-18 December 2015

SDO/HMI Vector Magnetic Field Observations of the Solar Polar Region, X. Sun, J.T. Hoeksema, Y. Liu, A.A. Norton, A. Sainz Dalda, K. Hayashi: [SH23A-2429](#)

Predicting the Interplanetary Magnetic Field using Approaches Based on Data Mining and Physical Models, P. Riley, C.T. Russell, C.A. de Koning, D.A. Biesecker, J. Linker, M.J.

Owens, N. Lugaz, P. Martens, R. Angryk, A. Reinard, R.K. Ulrich, T.S. Horbury, V.J. Pizzo, Y. Lu, J.T. Hoeksema: SH14A-06

### **IAU XXIX General Assembly; Honolulu, HI; 3-14 August 2015**

HMI Observations of Solar Flares in Solar Cycle 24, J.T. Hoeksema, M. Bobra, S. Couvidat, and X. Sun

### **Forecasts and Warnings of Extreme Storms at the Sun; Lund, Sweden; 1 June 2015**

Observing Precursors to the Important Extreme Storms at the Sun, J.T. Hoeksema

### **TESS - Triennial Earth-Sun Summit; Indianapolis, IN; 26-30 April 2015**

Causes of Major Change in the Heliospheric Field, #110.02, J.T. Hoeksema

Why is the Great Solar Active Region 12192 CME-Poor? #408.02, X. Sun, M. Bobra, J.T. Hoeksema,

Y. Liu, Y. Li, C. Chen, S. Couvidat, A. Norton, G.H. Fisher

## **2014**

### **AGU; San Francisco, CA; 15-19 December, 2014**

Evolving Global Heliospheric Structure in January 2014, J.T. Hoeksema & Y. Liu, SH53A-4201

Lorentz Force Imprint on the Solar Photosphere from the Inclined Eruptions on 2014 January 07, X. Sun and the CGEM Team, SH53A-4196

Systematic Errors and Uncertainties in the HMI Magnetic Data, A. Norton and the HMI Magnetic Field Team, SH53A-4198

### **2014 LWS/Hinode/IRIS Workshop, Evolving Solar Activity and Its Influence on Space and Earth, Portland, OR, 2-6 November, 2014**

A Curiously Ineffective Solar Event, J.T. Hoeksema

Using HSO to Improve Data-Driven Modeling in Heliophysics, J.T. Hoeksema, Panel Moderator

### **Open Show SF #64 -Seeing the Unseen, Oakland, CA, 30 October 2014**

Staring at the Sun, J.T. Hoeksema

### **AAS/SPD, Boston, MA, 1-5 June 2014**

Connecting the Dots - Magnetic Field in the Inner Heliosphere, J.T. Hoeksema, Y. Liu, X. Sun, A. Norton, AAS 224, #343.64, 2014, 2014AAS...22432364H

Tracked Active Region Patches for MDI and HMI, Michael Turman, J.T. Hoeksema, M. Bobra, AAS 224, #123.52, 2014AAS...22412352T

Polarity Reversal of the Solar Photospheric Magnetic Field During Activity Cycle 24, Xudong Sun, J.T. Hoeksema, Y. Liu, J. Zhao, AAS 224, #103.06, 2014AAS...22410306S

## **2013**

### **AGU Fall Meeting, San Francisco, CA, 9-13 December, 2013**

Progress and Problems in Data-Driven Models of the Solar Coronal Magnetic Field, Invited, M.L. DeRosa, G.H. Fisher, J.T. Hoeksema, SH14A-05

TARPs: Tracked Active Region Patches from SoHO/MDI, M. Turmon, J.T. Hoeksema, M. Bobra, SH23A-2087

North-South Asymmetries: the Solar Dynamo and Hemispheric Coupling, A.A. Norton, J.T. Hoeksema, K. Hayashi, Y. Liu, X. Sun, B.H. McClintock, E. Jones, W.M. Arden, SH33E-07

The Polar Field Reversal of Solar Cycle 24 Observed by SDO/HMI Details, X. Sun, J.T. Hoeksema, Y. Liu, K. Hayashi, A. Sainz Dalda, A.A. Norton, SH41A-2151

Space-weather Parameters for 1,000 Active Regions Observed by SDO/HMI, M. Bobra, Y. Liu, J.T. Hoeksema, X. Sun, SH53A-2154

### **44th SPD Meeting, Bozeman, MT, 8-12 July, 2013**

A Data-Driven Time-Dependent 3D MHD Simulation of Solar Active Regions with HMI Vector Magnetic Field Data, Keiji Hayashi, J.T. Hoeksema, Y. Liu, X. Sun, M. Bobra, A.A. Norton, SPD 44, #302.04, 2013SPD....4430204H

Hot Spine Loops and the Nature of a Late-Phase Solar Flare, Xudong Sun, J.T. Hoeksema, Y. Liu, G. Aulanier, Y. Su, I. Hannah, R. Hock, SPD 44, #201.03, 2013SPD....4420103S

The Coronal Global Evolutionary Model (CGEM), George H. Fisher, M.L. DeRosa, J.T. Hoeksema, SPD 44, #101.02, 2013SPD....4410102F

HMI Magnetic Field Products, J.T. Hoeksema and the HMI Magnetic Field Team, SPD 44, #100.108, 2013SPD....44..108H

### **2013 Meeting of the Americas, Cancun, Mexico, 14-17 May, 2013**

Inferring Large-Scale Solar Wind and Coronal Field Structure of Cycle 23 from MDI Magnetic Observation, X. Sun, J.T. Hoeksema, X.P. Zhao, Y. Liu, K. Hayashi, SH31B-01

## **2012**

### **AGU Fall Meeting, San Francisco, 3-7 December, 2012**

HARPs: Tracked Active Region Patch Data Product from SDO/HMI, Michael Turmon, J.T. Hoeksema, X. Sun, M. Bobra, SH13A-2246

The Asymmetric Polar Field Reversal - Long-Term Observations from WSO, J.T. Hoeksema, SH13C-2278

Strategies and Innovative Approaches for the Future of Space-Weather Forecasting, J.T. Hoeksema, SM22D-07

Motion of Magnetic Elements at the Solar Equator Observed by SDO/HMI, Keiji Hayashi, A. Norton, Y. Liu, X. Sun, J.T. Hoeksema, SH41D-2129

The Dynamic Polar Magnetic Field Before Its Polarity Reversal, Xudong Sun, J.T. Hoeksema, Y. Liu, A. Sainz Dalda, A. Norton, K. Hayashi, SH41D-2130



SHARPs - A Near Real Time Space Weather Data Product from HMI, Monica Bobra, M. Turmon, C. Baldner, X. Sun, J.T. Hoeksema, SH43B-2171\_

Magnetic Helicity in Emerging Active Regions: A Statistical Study, Yang Liu, K. Hayashi, J.T. Hoeksema, A. Norton, P.W. Schuck, X. Sun, SH53B-03.

Insights into Using SDO Data for Active Region Specification and Real-Time Event Monitoring, Rachel A. Hock, K.S. Balasubramaniam, A. Amezcua, R.S. Bogart, F.G. Eparvier, J.T. Hoeksema, A.R. Jones, D. Woodraska, and T.N. Woods, SH13A-2279

### **XXVIII IAU, Beijing, China, 20-24 August, 2012**

Evolution of the Solar Magnetic Field, J. Todd Hoeksema, in JD 3: 3-D Views of the Cycling Sun in Stellar Context

### **AAS/SPD, Anchorage, AK, 11-14 June, 2012**

Polar Reversal, Solar Maximum, and the Large-Scale Heliospheric Field in Solar Cycle 24, J. Todd Hoeksema, X. Sun, and K. Hayashi, AAS 206.07

A Portrait of the Magnetic Sun: Observation and Modeling at Global and Active Region Scales, X. Sun, J.T. Hoeksema, Y. Liu, X. Zhao, K. Hayashi, AAS 322.06

### **SDO-4/Hinode/IRIS Meeting, Monterey, CA, 12-16 March, 2012**

The Helioseismic and Magnetic Imager Magnetic Field Data Products, J.T. Hoeksema and the HMI Magnetic Field Team

## **2011**

### **AGU Fall Meeting, San Francisco, 5-9 December, 2011**

HMI Vector Magnetid Field Products: The Long-Awaited Release Has Come! Now What?, Rebecca Centeno; Graham Barnes; Juan Borrero; Sebastien P. Couvidat; Keiji Hayashi; J. T. Hoeksema; K D. Leka; Yang Liu; Jesper Schou; Peter W. Schuck; Xudong Sun; Steven Tomczyk, SH31A-1965

Spectropolarimetric Comparison Between SDO/HMI and Hinode-SOT/SP Through THEMIS/MTR, Alberto Sainz Dalda; Arturo Lopez Ariste; Bernard Gelly; Theodore D. Tarbell; Rebecca Centeno; Marc L. DeRosa; J T. Hoeksema SH31A-1986

Evolution of Magnetic Field in the Flaring Active Region AR 11158 Based on SDO/HMI Observations, Xudong Sun; J T. Hoeksema; Yang Liu; Thomas Wiegmann; Keiji Hayashi, SH31A-1993

The Rising Phase of Solar Cycle 24: General Solar Wind, Large-Scale Solar Wind Structures, and Sector Asymmetry, L.K. Jian, C.T. Russell, J.G. Luhmann, P. Riley, J.T. Hoeksema, D. Odstrcil, G. Petrie, SH33A-2036

Early Reversal of the Sun's Polar Field - Is Solar Cycle 24 Already Peaking?, J T. Hoeksema, SH33A-2044

Heliospheric Space Weather at the Start of Cycle 24, J.G. Luhmann, Y. Li, Y. Liu, L. Jian, C.T. Russell, E. Kilpua, G.J. Petria, J.T. Hoeksema SH31D-04

Nonlinear Force-Free Extrapolation of Vector Magnetograms into the Corona, Julia K. Thalmann; Thomas Wiegmann; Xudong Sun; J. T. Hoeksema; Yang Liu; Tilaye Tadesse, SH33C-05

SHARPs - A New Space Weather Data Product from SDO/HMI, Monica Bobra; J T. Hoeksema; Xudong Sun; Michael Turmon SH51B-2006

**Space Science Seminar, UC Berkeley, 29 November, 2011**

HMI & SDO: All of the Sun, All of the Time, J.T. Hoeksema

**LWS/SDO-3/SOHO-26/GONG-2011 Stanford University, 31 October - 4 November, 2011**

SHARP: Space-Weather HMI Active Region Patches - M.G. Bobra; J.T. Hoeksema, X. Sun, and the HMI Magnetic Field Team

The synoptic maps of Br from HMI observations: better input for the global coronal models. - Keiji Hayashi, Yang Liu, Xudong Sun, J. Todd Hoeksema, Rebecca Centeno Elliott, Graham Barnes and K.D. Leka

HMI Magnetic Field Observations - J.T. Hoeksema and the HMI Magnetic Field Team

Sunspot Groups Simultaneously Observed with HMI and MDI - A.A. Norton, J. Schou, Y. Liu, J.T. Hoeksema

Tracking Vector Magnetograms from the Solar Dynamics Observatory, - P.W. Schuck, X. Sun, K. Muglach, J.T. Hoeksema, and the HMI Vector Field Team

**The Sun 360 - STEREO-4/SDO-2/SOHO-25, Kiel, Germany, 25-29 July, 2011**

Global Modeling of the Coronal and Heliospheric Magnetic Field with Solar Observations, J.T. Hoeksema

Magnetic Field Topology and Energetics in the Flaring Active Region 11158, X. Sun, J.T. Hoeksema, Y. Liu, T. Wiegmann, K. Hayashi

**SPD Meeting 2011, Las Cruces, NM, 12-16 June, 2011**

Evolution of Magnetic Field in the Flaring Active Region 11158 Observed by SDO/HMI, X. Sun, J.T. Hoeksema, Y. Liu, T. Wiegmann, K. Hayashi

HMI Measurements of the Solar Magnetic Field, J.T. Hoeksema & the HMI Magnetic Field Team

MHD Simulations of the Solar Corona in Early August 2010 Using the HMI Magnetic Field Data, K. Hayashi, X. Zhao, Y. Liu, X. Sun, J.T. Hoeksema, and the HMI Team

Studying Solar Active Regions with HMI Data, Yang Liu, J.T. Hoeksema, K. Hayashi, X. Sun, P. Schuck, K Muglach

**First LWS/SDO Workshop, The Many Spectra of Solar Activity, Squaw Valley, Olympic Village, CA; 1-5 May, 2011**

The Helioseismic and Magnetic Image Magnetic Field Data Products, J. Todd Hoeksema and the HMI Magnetic Field Team

Tracked Patches of Solar Activity for HMI, Michael Turmon, Xudong Sun, and J. Todd Hoeksema

Studying Solar Active Regions with HMI Data, Yang Liu, J.T. Hoeksema, K. Hayashi, X. Sun, P. Schuck, and K. Muglach

Magnetogram Time Series Observed with HMI, A.A. Norton, J. Schou, Y. Liu and J.T. Hoeksema  
HMI Vector Field Results - and Why a Year Down the Line We Have Not Made the Data Available for Science Analysis, R. Centeno, S. Tomczyk, G. Barnes, J. Borrero, S. Couvidat, K. Hayashi, J.T. Hoeksema, K.D. Leka, Y. Liu, J. Schou, P. Schuck and X. Sun  
Evolution of Magnetic Field in the Flare Active Region 11158 Observed by SDO/HMI, Xudong Sun, J.T. Hoeksema, Y. Liu, T. Wiegelmann, and K. Hayashi  
MHD Simulation of the Solar Corona in Early August Using the HMI Magnetic Field Data, Keiji Hayashi, X.P. Zhao, Y. Liu, J.T. Hoeksema, and X. Sun  
Tracking Vector Magnetograms from the Solar Dynamics Observatory, P.W. Schuck, X. Sun, K. Muglach, and J.T. Hoeksema  
The Global Character of the 2010.08.01 Earth-Directed Coronal Mass Ejection and the Cause of the Associated Great Sympathetic Solar Storm, Xuepu Zhao and J.T. Hoeksema  
Calculating Flaring Potential in Solar Active Regions Using SDO/HMI Vector Magnetic Field Data, Monica G. Bobra, M.K. Georgoulis and J.T. Hoeksema

## **2010**

### **AGU 2010, San Francisco, CA; 13-17 December, 2010**

First Magnetic Field Results from the Helioseismic and Magnetic Imager (HMI) on the Solar Dynamics Observatory (SDO), J. Todd Hoeksema and The HMI Magnetic Team; SH13A-03

Synchronic Maps and Frames, J. Todd Hoeksema, Yang Liu, Xudong Sun, and Xuepu Zhao; SH41D-02

The Evolution of Photospheric Flows in Active Regions, K. Muglach, P.W. Schuck, J.T. Hoeksema, X. Sun and Y. Liu; SH11A-1605

First Results of Field Extrapolation Based on HMI Vector Magnetic Data, X. Sun, J.T. Hoeksema, T. Wiegelmann, K. Hayashi, and Y. Liu; SH11A-1607

Calculating Non-Potentiality in Solar Active Regions Using SDO/HMI Vector Magnetic Field Data, M. Bobra, J.T. Hoeksema; SH11A-1608

Modeling the Time Variation of Coronal Holes Observed by SDO/AIA, Stereo A and B Using HMI Synchronic Frames, X. Zhao, J.T. Hoeksema, and Y. Liu; SH11A-1616

Tracking Vector Magnetograms from the Solar Dynamics Observatory, P.W. Schuck, X. Sun, K. Muglach, and J.T. Hoeksema; SH14A-07

### **Meeting of the Americas, Foz do Iguasu, Brazil, 8-12 August, 2010**

Comparison of HMI Carrington Synoptic Maps of Line-of-sight Photospheric Magnetic Fields Among Different Spatial Resolutions, Xuepu Zhao, J. Todd Hoeksema, and Y. Liu

### **GONG 2010 / SOHO 24, Aix-en-Provence, France, 27 June - 1 July, 2010**

Initial Magnetic Field Observations from HMI, J. Todd Hoeksema and the HMI Magnetic Field Team

### **Solar Physics Division / AAS Meeting, Miami, FL, 24-27 May, 2010**

Early Magnetic Field Observations from HMI, J. Todd Hoeksema and the HMI Magnetic Field Team:

Y. Liu, K. Hayashi, X. Sun, J. Schou, S. Couvidat, X. Zhao, R. Bogart, P. Desai, S. Tomczyk, J. Borrero, R. Centeno Elliot, K.D. Leka, G. Barnes, A. Crouch, M. Turmon, P. Schuck, T. Wiegelmann and the rest of the HMI Team [402.06]

A Spherical Harmonic Analysis of the Evolution of the Photospheric Magnetic Field, and Consequences for the Solar Dynamo, Marc L. DeRosa, J.T. Hoeksema, A.S. Brun [317.01]

An Attempt in Incorporating Local and Global Coronal Magnetic Field Modeling, Xudong Sun, J.T. Hoeksema, X. Zhao, T. Wiegelmann [402.15]

Understanding Solar Eruptions with SDO/HMI Measuring Photospheric Flows, Testing Models, and Steps Towards Forecasting Solar Eruptions, Peter, W. Schuck, M. Linton, K. Muglach, T. Hoeksema [402.14]

First Data from the Helioseismic and Magnetic Imager, Jesper Schou and the HMI Team [308.01]

Helioseismic and Magnetic Imager Investigation on SDO - Current Status, Philip H. Scherrer and the HMI Team [402.04]

A Study on Evolution of the Solar Active Regions with SDO Data, Yang Liu and the HMI Team [402.07]

## **2009**

### **AGU Fall Meeting, San Francisco, CA; 13-18 December, 2009**

Comparing the Large-Scale Magnetic Field During the Last Three Solar Cycles (Invited), J.T. Hoeksema, SH13C-06

Mapping the Sun's Atmosphere into Interplanetary Space: How Recent Changes in the Solar Dynamo are Affecting the Solar Wind Around Us, J.G. Luhmann, C.O., Lee, and J.T. Hoeksema; U34A-04

The Magnetic Field at the Heliospheric Base During Solar Minimum, X. Zhao and J.T. Hoeksema, SH13B-1534

A New Source Surface Radius in Potential Field Modeling During the Current Weak Solar Minimum?, X. Sun and J.T. Hoeksema, SH11A--1487

### **Third Hinode Science Meeting, Tokyo, Japan; 1-4 December, 2009**

Hinode/SOT Spectropolarimetry and Vector Magnetic Field Comparisons with a Selection of International Instruments, K.D. Leka and the VMCoG - 21 co-authors including J.T. Hoeksema

### **Vector Magnetogram Comparison Group Meeting, Tucson, AZ; 27-29 October, 2009**

HMI Magnetic Products & Pipeline, J.T. Hoeksema

### **The Dynamics of the Sun Media Workshop, Boulder, CO; 23-25 October, 2009**

The Origin of the Solar Cycle & Helioseismology, J. Todd Hoeksema

ATST and Other Ground-Based Solar Observing, J. Todd Hoeksema

**SOHO 23: Understanding a Peculiar Solar Minimum, Northwest Harbor, Maine; 21-25 September, 2009**

On the Solar Wind Source Surface Radius for Cycle 23, J.G. Luhmann, C.O. Lee, Yan Li, C.N. Arge, J.T. Hoeksema, P. Riley, C.T. Russell, A. Thernisien and R.A. Howard [[large pdf](#)]

Three Cycles of the Solar Toroidal Magnetic Field and This Peculiar Minimum, Leyan Lo, J.T. Hoeksema & P.H. Scherrer

Key Questions for Understanding This Unusual Solar Minimum, J.T. Hoeksema, A. Gabriel, J. Luhmann, W. Matthaeus, N. Sheeley

**HMI Team Meeting, Stanford, CA; 8-11 September, 2009**

HMI Magnetic Products & Pipeline, J.T. Hoeksema

**IAU XXVII General Assembly, Symposium 284, Rio De Janeiro, 3-14 August, 2009**

Evolution of the Large-Scale Magnetic Field Over Three Solar Cycles, J. Todd Hoeksema

The Helioseismic and Magnetic Imager on the Solar Dynamics Observatory, J. Todd Hoeksema for the HMI Team - Stanford University

**Time-Distance Helioseismology Workshop, Stanford, CA; 20-22 July, 2009**

HMI Magnetic Field Observations and Data Products, J.T. Hoeksema

**SPD - Solar Physics Division of the American Astronomical Society, Boulder, CO; 14-18 June, 2009**

Spatial Structure of Polar Magnetic Field During the Last Solar cycle, Xudong Sun and T. Hoeksema

Testing Automated Solar Flare and Coronal Mass Ejection Forecasting with 13 Years of MDI Synoptic Magnetograms, James Mason and J.T. Hoeksema

The HMI Magnetic Field Pipeline, J.T. Hoeksema, UY. Liu, J Schou, P. Scherrer, and the HMI Science Team

## **2008**

**AGU - American Geophysical Union Fall Meeting, San Francisco, CA; 14-19 December, 2008**

Investigating Automated Coronal Mass Ejection Prediction Using a Solar Cycle of MDI Magnetograms, J.P. Mason, J.T. Hoeksema & D. Falconer, SA51A-1533

Polar Magnetic Fields Observed During the Last Four Solar Minima, X. Sun, Y. Liu, & J.T. Hoeksema, SH51A-1589.

**37th COSPAR Assembly, Montreal, Quebec, Canada; 13-20 July 2008**

Absence of a Long Lasting Southward Displacement of the HCS Near the Minimum Preceding Solar Cycle 24, X.P. Zhao, J.T. Hoeksema & P.H. Scherrer

**AGU/SPD - Joint Assembly, Ft. Lauderdale, FL; 26-30 May, 2008**

HMI Magnetic Field Data Products, J.T. Hoeksema & The HMI Magnetic Team

Modeling Solar Wind Using the Newly Calibrated MDI Magnetic Field:: 1996-2008, Xudong Sun and J.T. Hoeksema

The Sun as the Source of Heliospheric "Space Weather": A CISM Integrated Model Perspective and STEREO Inspiration (Invited), J.G. Lyhmann, Y. Li, B. Lynch, C.O. Lee, E. Huttunen, Y. Liu, V. Toy, D. Odstrcil, P. Riley, J. Linker, Z. Mikic, C. Arge, G. Petrie, X. Zhao, Y.Liu, T. Hoeksema, M. Owens, A Galvin, K. Simunac, R. Howard, A. Vourlidas, L.K. Jian, C.T. Russel

A Determination of the Value and Variability of the Sun's Open Magnetic Flux Using a Global MHD Model, P. Riley, Z. Mikic, J. Linker, J.W. Harvey, T. Hoeksema, Y. Liu, L. Bertello

### **SDO Science Teams Meeting, Napa, CA; March 25-28, 2008**

HMI Magnetic Field Data Products, J.T. Hoeksema for the HMI Magnetic Team

The HMI Investigation - P.H. Scherrer, J.T. Hoeksema & the HMI Science Team

## **2007**

### **JSOC Review, Stanford, CA; November, 2007**

JSOC Magnetic Products, J. Todd Hoeksema

### **SDO Teams Meeting, Boulder, CO; 14 September, 2007**

HMI Analysis Tools & Needs J.T. Hoeksema for the HMI Team

### **LWS Science Meeting: From the Sun towards the Earth, Boulder, CO; 10-13 September, 2007**

The HMI Investigation, P.H. Scherrer, J.T. Hoeksema & the HMI Science Team

The Helioseismic and Magnetic Imager: Magnetic Investigations J.T. Hoeksema for the HMI Magnetic Team

### **SHINE Workshop, Whistler, BC, Canada; 29 July - 3 August, 2007**

The Unusual Heliospheric Current Sheet at the End of Cycle 23: A Comparison of Cycles 21,22,& 23, J.T. Hoeksema

Useful Community Modeling Capabilities — One Perspective, J.T. Hoeksema

Improved MDI Synoptic Magnetic Fields Part 1 - Synoptic Charts, J.T. Hoeksema, Y. Liu, X.P. Zhao & A. Amezcua Part 2 - Polar Fields, Y. Liu, J.T Hoeksema, X.P. Zhao & R.M. Larson

A Comparative Study of Different Approaches to Modeling the Solar Wind, X. Sun & J.T. Hoeksema

### **CISM Solar Workshop - Whistler, BC, Canada; 28 July, 2007**

Observations of the Dec 2006 Event, presented for Yang Liu

### **Student Presentation, Stanford, CA; June, 2007**

SID Sources of Noise, Szu-chieh Jason Lu & Mathieu Evans with J.T. Hoeksema

### **CISM Site Visit, Boston, MA; 4-8 June, 2007**

CISM Cone Model Approach to Interplanetary CME (ICME) Simulation, D. Odstrcil, X.P. Zhao, Y. Liu, J.T. Hoeksema, C.N. Arge, S. Ledvina, P. Riley, & J. Linker

### **SPD - Solar Physics Division of the AAS in Honolulu, HI; 27-31 May, 2007**

24.05: MDI Synoptic Charts of Magnetic Field: Interpolation of Polar Fields, Y. Liu, J.T. Hoeksema, X.P. Zhao, R.M. Larson

24.15: The Helioseismic & Magnetic Imager on the Solar Dynamics Observatory, J.T. Hoeksema for the HMI Project Team

30.04: A Comparative Study of Different Approaches and Potential Improvement to Modeling the Solar Wind, X. Sun & J.T. Hoeksema

92.16: Constructing the Best High-resolution Synoptic Maps from MDI, J.T. Hoeksema, Y. Liu, X.P. Zhao, A. Amezcua

94.24: Statistical Relationships Between Active Region Photospheric Magnetic Properties and Flare Events, N. Bokenkamp & J.T. Hoeksema

### **AGU Joint Assembly, Acapulco, Mexico; May 23-27, 2007**

ED31A-02: Engaging Scientists & Educators in the IHY: A Case Study of Stanford's Space Weather Monitoring Program, D.K. Scherrer, B. Burrell, J.T. Hoeksema

## **2006**

### **AGU - American Geophysical Union Fall Meeting, San Francisco, CA; 11-15 Dec. 2006**

SH21A-0314: *The Solar Polar Field During Solar Cycles 21-23*, J.T. Hoeksema, Y. Liu, & X.P. Zhao

### **SPD - Solar Physics Division, Durham, NH; 26-30 June**

07.02: The Sun's Polar Magnetic Flux 1996-2006 Observed with SOHO/MDI, J.T. Hoeksema, E. Benevolenskaya, Y. Liu, P.H. Scherrer, & X.P. Zhao

### **COSPAR, Beijing; 16-22 July**

E2.1-0005-06 The Helioseismic & Magnetic Imager for the Solar Dynamics Observatory, Solicited, P.H. Scherrer, J.T. Hoeksema & the HMI Team

E2.1-0006-06 The Atmospheric Imaging Assembly on the Solar Dynamics Observatory, Solicited, A.M. Title, J.T. Hoeksema, C.J. Schrijver, & the AIA Team.

### **ILWS - International Living With a Star, Beijing; 22-23 July**

ILWS Solar Task Group Report, J.T. Hoeksema

### **Beijing Astronomical Observatory; 25 July**

Observations of the Sun with the HMI and AIA Investigations on SDO

**2005**

**HMI Team Meeting, Stanford, CA; January 2005**

HMI - Synoptic Data Sets, J. Todd Hoeksema