# Keiji Hayashi

List of Publications by Year
in descending order



| 53 | 2,723 | 236925 25 | 175258 52 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 56 | 56 | 56 | 1438 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The Helioseismic and Magnetic Imager (HMI) Vector Magnetic Field Pipeline: SHARPs â€“ Space-Weather HMI Active Region Patches. Solar Physics, 2014, 289, 3549-3578. | 2.5 | 471 |
| 2 | The Helioseismic and Magnetic Imager (HMI) Vector Magnetic Field Pipeline: Overview and Performance. Solar Physics, 2014, 289, 3483-3530. | 2.5 | 437 |
| 3 | EVOLUTION OF MAGNETIC FIELD AND ENERGY IN A MAJOR ERUPTIVE ACTIVE REGION BASED ONSDO/HMI OBSERVATION. Astrophysical Journal, 2012, 748, 77. | 4.5 | 315 |
| 4 | Comparison of Line-of-Sight Magnetograms Taken by the Solar Dynamics Observatory/Helioseismic and Magnetic Imager and Solar and Heliospheric Observatory/Michelson Doppler Imager. Solar Physics, 2012, 279, 295-316. | 2.5 | 203 |
| 5 | The Helioseismic and Magnetic Imager (HMI) Vector Magnetic Field Pipeline: Optimization of the Spectral Line Inversion Code. Solar Physics, 2014, 289, 3531-3547. | 2.5 | 88 |
| 6 | Magnetohydrodynamic Simulations of the Solar Corona and Solar Wind Using a Boundary Treatment to Limit Solar Wind Mass Flux. Astrophysical Journal, Supplement Series, 2005, 161, 480-494. | 7.7 | 80 |
| 7 | MAGNETOHYDRODYNAMIC SIMULATION OF THE X2.2 SOLAR FLARE ON 2011 FEBRUARY 15. I. COMPARISON WITH THE OBSERVATIONS. Astrophysical Journal, 2014, 788, 182. | 4.5 | 73 |
| 8 | A New Method for Polar Field Interpolation. Solar Physics, 2011, 270, 9-22. | 2.5 | 72 |
| 9 | A NON-RADIAL ERUPTION IN A QUADRUPOLAR MAGNETIC CONFIGURATION WITH A CORONAL NULL. Astrophysical Journal, 2012, 757, 149. | 4.5 | 60 |
| 10 | MAGNETOHYDRODYNAMIC SIMULATION OF THE X2.2 SOLAR FLARE ON 2011 FEBRUARY 15. II. DYNAMICS CONNECTING THE SOLAR FLARE AND THE CORONAL MASS EJECTION. Astrophysical Journal, 2015, 803, 73. | 4.5 | 56 |
| 11 | The Coronal Global Evolutionary Model: Using HMI Vector Magnetogram and Doppler Data to Model the Buildup of Free Magnetic Energy in the Solar Corona. Space Weather, 2015, 13, 369-373. | 3.7 | 51 |
| 12 | MAGNETIC HELICITY IN EMERGING SOLAR ACTIVE REGIONS. Astrophysical Journal, 2014, 785, 13. | 4.5 | 49 |
| 13 | MHD tomography using interplanetary scintillation measurement. Journal of Geophysical Research, 2003, 108, . | 3.3 | 45 |
| 14 | MAGNETIC STRUCTURE PRODUCING X- AND M-CLASS SOLAR FLARES IN SOLAR ACTIVE REGION 11158. Astrophysical Journal, 2013, 770, 79. | 4.5 | 43 |
| 15 | Nonâ€dipolar solar wind structure observed in the cycle 23/24 minimum. Geophysical Research Letters, 2009, 36, . | 4.0 | 39 |
| 16 | An MHD Simulation of Solar Active Region 11158 Driven with a Time-dependent Electric Field Determined from HMI Vector Magnetic Field Measurement Data. Astrophysical Journal, 2018, 855, 11. | 4.5 | 38 |
| 17 | STRUCTURE AND STABILITY OF MAGNETIC FIELDS IN SOLAR ACTIVE REGION 12192 BASED ON NONLINEAR FORCE-FREE FIELD MODELING. Astrophysical Journal, 2016, 818, 168. | 4.5 | 33 |
| 18 | An MHD simulation model of timeâ€dependent coâ€rotating solar wind. Journal of Geophysical Research, 2012, 117, . | 3.3 | 31 |

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|---|---|---|---|
| 19 | Properties of High-Frequency Wave Power Halos Around Active Regions: An Analysis of Multi-height Data from HMI and AIA Onboard SDO. Solar Physics, 2013, 287, 107-127. | 2.5 | 31 |
| 20 | Relation Between Coronal Hole Areas and Solar Wind Speeds Derived from Interplanetary Scintillation Measurements. Solar Physics, 2017, 292, 1. | 2.5 | 30 |
| 21 | The 2003 Octoberâ€“November Fast Halo Coronal Mass Ejections and the Largeâ€Scale Magnetic Field Structures. Astrophysical Journal, 2006, 640, 1135-1141. | 4.5 | 29 |
| 22 | The Helioseismic and Magnetic Imager (HMI) Vector Magnetic Field Pipeline: Magnetohydrodynamics Simulation Module for the Global Solar Corona. Solar Physics, 2015, 290, 1507-1529. | 2.5 | 29 |
| 23 | An MHD simulation model of timeâ€dependent global solar corona with temporally varying solarâ€surface magnetic field maps. Journal of Geophysical Research: Space Physics, 2013, 118, 6889-6906. | 2.4 | 27 |
| 24 | Vector Magnetic Field Synoptic Charts from the Helioseismic and Magnetic Imager (HMI). Solar Physics, 2017, 292, 1. | 2.5 | 26 |
| 25 | Comparative Study of Data-driven Solar Coronal Field Models Using a Flux Emergence Simulation as a Ground-truth Data Set. Astrophysical Journal, 2020, 890, 103. | 4.5 | 26 |
| 26 | Magnetohydrodynamic Simulations for Solar Active Regions using Time-series Data of Surface Plasma Flow and Electric Field Inferred from Helioseismic Magnetic Imager Vector Magnetic Field Measurements. Astrophysical Journal Letters, 2019, 871, L28. | 8.3 | 25 |
| 27 | STATISTICAL ANALYSIS OF THE HORIZONTAL DIVERGENT FLOW IN EMERGING SOLAR ACTIVE REGIONS. Astrophysical Journal, 2014, 794, 19. | 4.5 | 24 |
| 28 | IPS tomographic observations of 3D solar wind structure. Astronomical and Astrophysical Transactions, 2007, 26, 467-476. | 0.2 | 22 |
| 29 | The Coronal Global Evolutionary Model: Using HMI Vector Magnetogram and Doppler Data to Determine Coronal Magnetic Field Evolution. Astrophysical Journal, Supplement Series, 2020, 250, 28. | 7.7 | 22 |
| 30 | MHD simulation of two successive interplanetary disturbances driven by cone-model parameters in IPS-based solar wind. Geophysical Research Letters, 2006, 33, . | 4.0 | 21 |
| 31 | DETECTION OF THE HORIZONTAL DIVERGENT FLOW PRIOR TO THE SOLAR FLUX EMERGENCE. Astrophysical Journal, 2012, 751, 154. | 4.5 | 21 |
| 32 | LONG-TERM TREND OF SOLAR CORONAL HOLE DISTRIBUTION FROM 1975 TO 2014. Astrophysical Journal Letters, 2016, 827, L41. | 8.3 | 21 |
| 33 | How did the solar wind structure change around the solar maximum? From interplanetary scintillation observation. Annales Geophysicae, 2003, 21, 1257-1261. | 1.6 | 20 |
| 34 | Fast solar wind after the rapid acceleration. Journal of Geophysical Research, 2004, 109, . | 3.3 | 20 |
| 35 | Three-Dimensional Magnetohydrodynamic Simulation of a Global Solar Corona Using a Temperature Distribution Map Obtained from SOHO EIT Measurements. Astrophysical Journal, 2006, 636, L165-L168. | 4.5 | 20 |
| 36 | MHD simulations of the global solar corona around the Halloween event in 2003 using the synchronic frame format of the solar photospheric magnetic field. Journal of Geophysical Research, 2008, 113, . | 3.3 | 16 |

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|---|---|---|---|
| 37 | Validation of Two MHD Models of the Solar Corona with Rotational Tomography. Astrophysical Journal, 2008, 682, 1328-1337. | 4.5 | 15 |
| 38 | Comparison of potential field solutions for Carrington Rotation 2144. Journal of Geophysical Research: Space Physics, 2016, 121, 1046-1061. | 2.4 | 13 |
| 39 | MHDâ€IPS analysis of relationship among solar wind density, temperature, and flow speed. Journal of Geophysical Research: Space Physics, 2016, 121, 7367-7384. | 2.4 | 10 |
| 40 | Exploration of solar photospheric magnetic field data sets using the UCSD tomography. Space Weather, 2016, 14, 1107-1124. | 3.7 | 10 |
| 41 | Polar low-speed solar wind reappeared at the solar activity maximum of cycle 23. Geophysical Research Letters, 2003, 30, . | 4.0 | 9 |
| 42 | Prospective Out-of-ecliptic White-light Imaging of Interplanetary Corotating Interaction Regions at Solar Maximum. Astrophysical Journal, 2017, 844, 76. | 4.5 | 7 |
| 43 | Prospective White-light Imaging and In Situ Measurements of Quiescent Large-scale Solar-wind Streams from the Parker Solar Probe and Solar Orbiter. Astrophysical Journal, 2018, 868, 137. | 4.5 | 7 |
| 44 | Parametric Study of ICME Properties Related to Space Weather Disturbances via a Series of Three-Dimensional MHD Simulations. Solar Physics, 2019, 294, 1. | 2.5 | 7 |
| 45 | An Electric-field-driven Global Coronal Magnetohydrodynamics Simulation Model Using Helioseismic and Magnetic Imager Vector-magnetic-field Synoptic Map Data. Astrophysical Journal, 2022, 930, 60. | 4.5 | 7 |
| 46 | Coupling a Global Heliospheric Magnetohydrodynamic Model to a Magnetofrictional Model of the Low Corona. Astrophysical Journal, Supplement Series, 2021, 254, 1. | 7.7 | 6 |
| 47 | Prospective Out-of-ecliptic White-light Imaging of Coronal Mass Ejections Traveling through the Corona and Heliosphere. Astrophysical Journal, 2018, 852, 111. | 4.5 | 5 |
| 48 | MHD analysis of the velocity oscillations in the outer heliosphere. Geophysical Research Letters, 2014, 41, 1420-1424. | 4.0 | 4 |
| 49 | Making global map of the solar surface B<sub>r</sub> from the HMI vector magnetic field observations. Journal of Physics: Conference Series, 2013, 440, 012036. | 0.4 | 3 |
| 50 | The MHD simulation of the inner heliosphere over 9 years using the observation-based time-varying boundary data. AIP Conference Proceedings, 2012, , . | 0.4 | 2 |
| 51 | A preliminary analysis of dynamic and realistic heliosphere using interplanetary scintillation and photospheric magnetic data. AIP Conference Proceedings, 2012, , . | 0.4 | 1 |
| 52 | How much more can sunspots tell us about the solar dynamo?. Proceedings of the International Astronomical Union, 2012, 8, 25-36. | 0.0 | 1 |
| 53 | The Role of a Tiny Brightening in a Huge Geoeffective Solar Eruption Leading to the St. Patrickâ€™s Day Storm. Astrophysical Journal, 2019, 874, 73. | 4.5 | 1 |