

References

- Acton, L.W. et al.: Deriving solar X ray irradiance from Yohkoh observations, 1999, *J. Geophys. Res.*, 104(A7), 14827.
- Anabuki, N. et al.: High-speed on-board data processing for x-ray CCD camera, 2002, *Proc. SPIE*, 4497, 158.
- Asai, A. et al.: Strongly Blueshifted Phenomena Observed with Hinode EIS in the 2006 December 13 Solar Flare, 2008, *ApJ*, 685, 622.
- Aschwanden, M. J. and Nightingale, R. W.: Elementary Loop Structures in the Solar Corona Analyzed from TRACE Triple-Filter Images, 2005, *ApJ*, 633, 499.
- Aschwanden, M. J. et al.: Electron Trapping Times and Trap Densities in Solar Flare Loops Measured with Compton and YOHKOH, 1997, *ApJ*, 487, 936.
- Aschwanden, M., Nightingale, R. and Alexander, D.: Evidence for Nonuniform Heating of Coronal Loops Inferred from Multithread Modeling of TRACE Data, 2000, *ApJ*, 541, 1059.
- Asensio Ramos, A. et al.: Advanced Forward Modeling and Inversion of Stokes Profiles Resulting from the Joint Action of the Hanle and Zeeman Effects, 2008, *ApJ*, 683, 542.
- Baker, D. et al.: Magnetic Reconnection along Quasi-separatrix Layers as a Driver of Ubiquitous Active Region Outflows, 2009, *ApJ*, 705, 926.
- Banerjee, D. et al.: Long-Period Oscillations in Polar Plumes as Observed by cds on Soho, 2000, *Solar Phys.*, 196, 63.
- Banerjee, D. et al.: Polar Plumes and Inter-plume regions as observed by SUMER on SOHO, 2000, *Solar Phys.*, 194, 43.
- Banerjee, D. et al.: Propagating waves in polar coronal holes as seen by SUMER & EIS, 2009, *A & A*, 499, 29.
- Barnes, G. and Leka, K. D.: Evaluating the Performance of Solar Flare Forecasting Methods, 2008, *ApJ*, 688, 107.
- Baum, P. J. and Bratenahl, A.: Mass motion and heating in a magnetic neutral point system, 1974, *Journal of Plasma Physics*, 11, 93-98.
- Baumjohann, W. et al.: Substorm dipolarization and recovery, 1999, *J. Geophys. Res.*, 104, 24995.
- Beckers, J. M.: Solar Spicules, 1972, *Annual Review of Astronomy and Astrophysics*, 10, 73.
- Berger, T. E. et al.: Hinode SOT Observations of Solar Quiescent Prominence Dynamics, 2008, *ApJ*, 676, 89.
- Bogdan, T. J. et al.: Waves in the Magnetized Solar Atmosphere. II. Waves from Localized Sources in Magnetic Flux Concentrations, 2003, *ApJ*, 599, 626.
- Brandenburg, A. and Zweibel, E. G.: The formation of sharp structures by ambipolar diffusion, 1994, *ApJ*, 427, L91.
- Brooks, D. H. et al.: Flows and Motions in Moss in the Core of a Flaring Active Region: Evidence for Steady Heating, 2009, *ApJ*, 703, L10.

- Carlsson, M. and Stein, R. F.: Formation of Solar Calcium H and K Bright Grains, 1997, *ApJ*, 481, 500.
- Carlsson, M. et al.: Can High Frequency Acoustic Waves Heat the Quiet Sun Chromosphere?, 2007, *PASJ*, 59, 663.
- Carlsson, M. et al.: Chromospheric heating and structure as determined from high resolution 3D simulations, 2010, *Memorie della Societa Astronomica Italiana*, 81, 582.
- Casalbuoni, S. et al.: Coronal plumes and the expansion of pressure-balanced structures in the fast solar wind, 1999, *J. Geophys. Res.*, 104, 9947.
- Casini, R., Bevilacqua, R., Lopez Ariste, A.: Principal Component Analysis of the He I D3 Polarization Profiles from Solar Prominences, 2005, *ApJ*, 622, 1265.
- Cauzzi, G. et al.: Acoustic Shocks in the Quiet Solar Chromosphere, 2007, *The Physics of Chromospheric Plasmas ASP Conference Series*, 368, Proceedings of the conference held 9-13 October, 2006 at the University of Coimbra in Coimbra, Portugal. Edited by P. Heinzel, I. Dorotović, and R. J. Rutten. San Francisco: Astronomical Society of the Pacific, 127.
- Centino, R. et al.: Emergence of Small-Scale Magnetic Loops in the Quiet-Sun Internetwork, 2007, *ApJ*, 666, L137.
- Cheung, M. C. M. et al.: Solar Surface Emerging Flux Regions: A Comparative Study of Radiative MHD Modeling and Hinode SOT Observations, 2008, *ApJ*, 687, 1373.
- Chiueh, T.: Ambipolar Diffusion--driven Tearing Instability in a Steepening Background Magnetic Field, 1998, *ApJ*, 494, 90.
- Cirtain, J. et al.: Evidence for Alfvén Waves in Solar X-ray Jets, 2007, *Science*, 318, 1580.
- DeForest, C. E. and Gurman, J. B.: Observation of Quasi-periodic Compressive Waves in Solar Polar Plumes, 1998, *ApJ*, 501, L217.
- De Pontieu, B. et al.: A Tale of Two Spicules: The Impact of Spicules on the Magnetic Chromosphere, 2007, *PASJ*, 59, 655.
- De Pontieu, B. et al.: Chromospheric Alfvénic Waves Strong Enough to Power the Solar Wind, 2007, *Science*, 318, 1574.
- De Pontieu, B. et al.: Observing the Roots of Solar Coronal Heating-in the Chromosphere, 2009, *ApJ*, 701, L1.
- De Pontieu, B., et al.: The Origins of Hot Plasma in the Solar Corona, 2011, *Science*, 331, 55.
- de la Cruz Rodríguez, J., et al.: Observation and analysis of chromospheric magnetic fields, 2010, *Memorie della Societa Astronomica Italiana*, 81, 716.
- Del Zanna, L. et al.: An MHD model for solar coronal plumes, 1997, *A & A*, 318, 963.
- DeRosa, M. C. et al.: A Critical Assessment of Nonlinear Force-Free Field Modeling of the Solar Corona for Active Region 10953, 2009, *ApJ*, 696, 1780.
- Doschek, G. A. et al.: Bright Points and Jets in Polar Coronal Holes Observed by the Extreme-Ultraviolet Imaging Spectrometer on Hinode, 2010, *ApJ*, 710, 1806.
- Dupree, A. K. et al.: He i 10830 Angstrom Wing Asymmetry in Polar Coronal Holes: Evidence for Radial Outflows, 1996, *ApJ*, 467, L121.

- Dere, K. P. and Cook, J. W.: The decay of the 1973 August 9 flare, 1979, *ApJ*, 229, 772.
- Dere, K. P. et al.: CHIANTI - an atomic database for emission lines. IX. Ionization rates, recombination rates, ionization equilibria for the elements hydrogen through zinc and updated atomic data, 2009, *A&A*, 498, 915.
- Fossum, A. and Carlsson, M.: High-frequency acoustic waves are not sufficient to heat the solar chromosphere, 2005, *Nature*, 435, 919.
- Fujimura, D. and Tsuneta, S.: Properties of Magnetohydrodynamic Waves in the Solar Photosphere Obtained with Hinode, 2009, *ApJ*, 702, 1443.
- Gabriel, A. H. et al.: Solar Wind Outflow in Polar Plumes from 1.05 to 2.4 R_{solar} , 2005, *ApJ*, 635, 185.
- Gabriel, A. H. et al.: The Contribution of Polar Plumes to the Fast Solar Wind, 2003, *ApJ*, 589, 623.
- Georgoulis, M. K. et al.: Statistics, Morphology, and Energetics of Ellerman Bombs, 2002, *ApJ*, 575, 506.
- Giordano, S. et al.: Identification of the Coronal Sources of the Fast Solar Wind, 2000, *ApJ*, 531, 79.
- Goldberg, K. A. et al.: Ultra-high accuracy optical testing: creating diffraction-limited short-wavelength optical systems, 2005, *Optics for EUV, X-Ray, and Gamma-Ray Astronomy II*. Edited by Citterio, Oberto; O'Dell, Stephen L. *Proceedings of the SPIE*, 5900, 114.
- Green, L. M. and Kliem, B.: Flux Rope Formation Preceding Coronal Mass Ejection Onset, 2009, *ApJ*, 700, L83.
- Hannah, I. G. et al.: An intriguing solar microflare observed with RHESSI, Hinode, and TRACE, 2008, *A&A*, 481, L45.
- Hannah, I. G. et al.: RHESSI Microflare Statistics. II. X-Ray Imaging, Spectroscopy, and Energy Distributions, 2008, *ApJ*, 677, 704.
- Hara, H. et al.: Coronal Plasma Motions near Footpoints of Active Region Loops Revealed from Spectroscopic Observations with Hinode EIS, 2008, *ApJ*, 678, 67.
- Harra, L. K. et al.: Coronal Nonthermal Velocity Following Helicity Injection Before an X-Class Flare, 2009, *ApJ*, 691, L99.
- Harra, L. K. et al.: Response of the Solar Atmosphere to the Emergence of 'Serpentine' Magnetic Field, 2010, *Solar Phys.*, 263, 105.
- Hassler, D. M. et al.: Solar Wind Outflow and the Chromospheric Magnetic Network, 1999, *Science*, 283, 810.
- Hones, E. W., Jr.: Transient phenomena in the magnetotail and their relation to substorms, 1979, *Space Science Reviews*, 23, 393.
- Hori, K. et al.: Pseudo--Two-dimensional Hydrodynamic Modeling of Solar Flare Loops, 1997, *ApJ*, 489, 426.
- Imada, S. et al.: Average profiles of energetic and thermal electrons in the magnetotail reconnection regions, 2005, *Geophys. Res. L.*, 32, L09101.
- Imada, S. et al.: Energetic electron acceleration in the downstream reconnection outflow region, 2007, *J. Geophys. Res.*, 112, A03202.

- Imada, S. et al.: Ion Temperature and Non-Thermal Velocity in a Solar Active Region: Using Emission Lines of Different Atomic Species, 2009, *ApJ*, 705, L208.
- Imada, S. et al.: Non-Gaussian Line Profiles in a Large Solar Flare Observed on 2006 December 13, 2008, *ApJ*, 679, 155.
- Imada, S. et al.: The dawn-dusk asymmetry of energetic electron in the Earth's magnetotail: Observation and transport models, 2008, *J. Geophys. Res.*, 113, A11201.
- Innes, D. E. et al.: Bursts of Explosive Events in the Solar Network, 1997, *Solar Phys.*, 175, 341.
- Ishikawa, R. et al.: Relationships between magnetic foot points and G-band bright structures, 2007, *A & A*, 472, 911.
- Ishikawa, R., et al.: Transient horizontal magnetic fields in solar plage regions, 2008, *A&A*, 481, 25.
- Isobe, H. et al.: Convection-driven Emergence of Small-Scale Magnetic Fields and their Role in Coronal Heating and Solar Wind Acceleration, 2008, *ApJ*, 679, 79.
- Jefferies et al.: Magnetoacoustic Portals and the Basal Heating of the Solar Chromosphere, 2006, *ApJ*, 648, 151.
- Ji, H. et al.: Experimental Test of the Sweet-Parker Model of Magnetic Reconnection, 1998, *Physical Review Letters*, 80, 3256.
- Jing, J. et al.: Changes of Magnetic Structure in Three Dimensions Associated with the X3.4 Flare of 2006 December 13, 2008, *ApJ*, 676, 81.
- Kataoka, R. et al.: Three-dimensional MHD modeling of the solar wind structures associated with 13 December 2006 coronal mass ejection, 2009, *J. Geophys. Res.*, 114, A10102.
- Katsukawa, Y. et al.: Small-Scale Jetlike Features in Penumbral Chromospheres, 2007, *Science*, 318, 1594.
- Kilpua, E. K. J. et al.: Small Solar Wind Transients and Their Connection to the Large-Scale Coronal Structure, 2009, *Solar Phys.*, 256, 327.
- Kitagawa, N. et al.: Mode Identification of MHD Waves in an Active Region Observed with Hinode/EIS, 2010, *ApJ*, 721, 744.
- Klimchuk, J. A.: On Solving the Coronal Heating Problem, 2006, *Solar Phys.*, 234, 41.
- Koyama, K. et al.: X-Ray Imaging Spectrometer (XIS) on Board Suzaku, 2007, *PASJ*, 59, S23.
- Krieger, A. S. et al.: A Coronal Hole and Its Identification as the Source of a High Velocity Solar Wind Stream, 1973, *Solar Phys.*, 29, 505.
- Krucker, S. et al.: Hard X-ray Microflares down to 3 keV, 2002, *Solar Phys.*, 210, 445.
- Kubo, M. et al.: Hinode Observations of a Vector Magnetic Field Change Associated with a Flare on 2006 December 13, 2007, *PASJ*, 59, 779.
- Kubo, M., Low, B. C., and Lites, B. W.: Granular-scale Magnetic Flux Cancellations in the Photosphere, 2010, *ApJ*, 712, 1321.
- Lagg, A. et al.: Retrieval of the full magnetic vector with the He I multiplet at 1083 nm. Maps of an emerging flux region, 2004, *A&A*, 414, 1109.
- Leenaarts, J. et al.: Non-equilibrium hydrogen ionization in 2D simulations of the solar atmosphere, 2007, *A&A*, 473, 625.

- Leenaarts, J. et al.: Three-Dimensional Non-LTE Radiative Transfer Computation of the CA 8542 Infrared Line From a Radiation-MHD Simulation, 2009, *ApJ*, 694, L128.
- Leka, K. D. and Barnes, G.: Photospheric Magnetic Field Properties of Flaring versus Flare-quiet Active Regions. IV. A Statistically Significant Sample, 2007, *ApJ*, 656, 1173.
- Li, H. et al.: Response of Solar Atmosphere to Magnetic Flux Emergence from Hinode Observation, 2007, *PASJ*, 59, 643.
- Lites, B. et al.: Hinode Observations of Horizontal Quiet Sun Magnetic Flux and the "Hidden Turbulent Magnetic Flux", 2007, *PASJ*, 59, 571.
- Lites, B., et al.: The Horizontal Magnetic Flux of the Quiet-Sun Internetwork as Observed with the Hinode Spectro-Polarimeter, 2008, *ApJ*, 672, 1237.
- Lites, B., et al.: Emergence of Helical Flux and the Formation of an Active Region Filament Channel, 2010, *ApJ*, 718, 474.
- Llopart, X., Ballabriga, R., Campbell, M., Tlustos, L., and Wong, W.: 2007, *NIM-A*, 581, 485.
- Magara, T. and Tsuneta, S.: Hinode's Observational Result on the Saturation of Magnetic Helicity Injected into the Solar Atmosphere and Its Relation to the Occurrence of a Solar Flare, 2008, *PASJ*, 60, 1181.
- Manso Sainz, R. and Trujillo Bueno, J.: Scattering Polarization of the Ca II IR Triplet for Probing the Quiet Solar Chromosphere, 2010, *ApJ*, 722, 1416.
- Masuda, S. et al.: A loop-top hard X-ray source in a compact solar flare as evidence for magnetic reconnection, 1994, *Nature*, 371, 495.
- Matsumoto, T. and Shibata, K.: Nonlinear Propagation of Alfvén Waves Driven by Observed Photospheric Motions: Application to the Coronal Heating and Spicule Formation, 2010, *ApJ*, 710, 1857.
- Matsumoto, T. et al.: Cooperative Observation of Ellerman Bombs between the Solar Optical Telescope aboard Hinode and Hida/Domeless Solar Telescope, 2008, *PASJ*, 60, 577.
- Matsuzaki, K. et al.: Hot and Cool Loops Composing the Corona of the Quiet Sun, 2007, *PASJ*, 59, 683.
- McIntosh, S. W. and De Pontieu, B.: High-Speed Transition Region and Coronal Upflows in the Quiet Sun, 2009, *ApJ*, 707, 524.
- McKenzie, D. E. and Canfield, R. C.: Hinode XRT observations of a long-lasting coronal sigmoid, 2008, *A & A*, 481, 65.
- Merenda, L. et al.: A Magnetic Map of a Solar Filament, 2007, *The Physics of Chromospheric Plasmas ASP Conference Series*, 368, Proceedings of the conference held 9-13 October, 2006 at the University of Coimbra in Coimbra, Portugal. Edited by P. Heinzel, I. Dorotovič, and R. J. Rutten. San Francisco: Astronomical Society of the Pacific, 2007, 347.
- Minoshima et al.: Multiwavelength Observation of Electron Acceleration in the 2006 December 13 Flare, 2009, *ApJ*, 697, 843.
- Nagai, T. et al.: Geotail observations of the Hall current system: Evidence of magnetic reconnection in the magnetotail, 2001, *J. Geophys. Res.*, 106, 25929.
- Nagai, T. et al.: Structure and dynamics of magnetic reconnection for substorm onsets with Geotail observations, 1998, *J. Geophys. Res.*, 103, 4419.

- Nagata, S. et al.: Formation of Solar Magnetic Flux Tubes with Kilogauss Field Strength Induced by Convective Instability, 2008, *ApJ*, 677, 145.
- Nakariakov, V. M. et al.: TRACE observation of damped coronal loop oscillations: Implications for coronal heating, 1999, *Science*, 285, 862.
- Nishizuka, N. et al.: Giant Chromospheric Anemone Jet Observed with Hinode and Comparison with Magnetohydrodynamic Simulations: Evidence of Propagating Alfvén Waves and Magnetic Reconnection, 2008, *ApJ*, 683, 83.
- Ofman, L. et al.: Ultraviolet Coronagraph Spectrometer Observations of Density Fluctuations in the Solar Wind, 1997, *ApJL*, 491, 111.
- Ofman, L. et al.: UVCS WLC Observations of Compressional Waves in the South Polar Coronal Hole, 2000, *ApJ*, 529, 592.
- Oieroset, M. et al.: Evidence for Electron Acceleration up to ~300 keV in the Magnetic Reconnection Diffusion Region of Earth's Magnetotail, 2002, *Physical Review Letters*, 89, 195001.
- Okamoto, T. J. et al.: Coronal Transverse Magnetohydrodynamic Waves in a Solar Prominence, 2007, *Science*, 318, 1577.
- Okamoto, T. J. et al.: Prominence Formation Associated with an Emerging Helical Flux Rope, 2009, *ApJ*, 697, 913.
- Ono, Y. et al.: Experimental Investigation of Three-Component Magnetic Reconnection by Use of Merging Spheromaks and Tokamaks, 1997, *Physics of Plasmas*, 4, 1953.
- Orozco Suárez, D. et al.: Quiet-Sun Internetwork Magnetic Fields from the Inversion of Hinode Measurements, 2007, *ApJ*, 670, 610.
- Parker, E. N. et al.: Solar and Stellar Magnetic Fields and Atmospheric Structures - Theory, 1989, *Solar Phys.*, 12, 271.
- Raouafi, N. E. et al.: Evidence for Polar Jets as Precursors of Polar Plume Formation, 2008, *ApJ*, 682, 137.
- Raouafi, N. E. et al.: Properties of Solar Polar Coronal Plumes Constrained by Ultraviolet Coronagraph Spectrometer Data 2007, *ApJ*, 658, 643.
- Reeves, K. K. and Warren H. P.: Modeling the Cooling of Postflare Loops, 2002, *ApJ*, 578, 590.
- Reeves, K. K. et al.: Theoretical Predictions of X-Ray and Extreme-UV Flare Emissions Using a Loss-of-Equilibrium Model of Solar Eruptions, 2007, *ApJ*, 668, 1210.
- Roberts, B.: Waves and Oscillations in the Corona, 2000, *Solar Phys.*, 193, 139.
- Ruiz Cobo, B. and del Toro Iniesta, J. C.: Inversion of Stokes profiles, 1992, *ApJ*, 398, 375.
- Rust, D. M. and Kumar, A.: Evidence for Helically Kinked Magnetic Flux Ropes in Solar Eruptions, 1996, *ApJ*, 464, L199.
- Rutten, R. J.: Observing the Solar Chromosphere, 2007, *ASP Conference Series*, 368, 27.
- Sanchez-Almeida, J. et al.: Search for photospheric footpoints of quiet Sun transition region loops, 2007, *A & A*, 475, 1101.
- Savcheva, A. and van Ballegoijen, A.: Nonlinear Force-free Modeling of a Long-lasting Coronal

- Sigmoid, 2009, *ApJ*, 703, 1766.
- Schmieder, B. et al.: Emerging Flux and the Heating of Coronal Loops, 2004, *ApJ*, 601, 530.
- Seely, J. F. et al.: Observation of nonthermal energy distributions during the impulsive phase of solar flares, 1987, *ApJ*, 319, 541.
- Shibata, K. et al.: Chromospheric Anemone Jets as Evidence of Ubiquitous Reconnection, 2007, *Science*, 318, 1591.
- Shimizu, T. et al.: Image Stabilization System for Hinode (Solar-B) Solar Optical Telescope, 2008, *Solar Phys.*, 249, 221.
- Shimizu, T. et al.: Frequent Occurrence of High-Speed Local Mass Downflows on the Solar Surface, 2008, *ApJ*, 680, 1467.
- Shimizu, T. et al.: Hinode Observation of the Magnetic Fields in a Sunspot Light Bridge Accompanied by Long-Lasting Chromospheric Plasma Ejections, 2009, *ApJ*, 696, L66.
- Shimojo, M. and Tsuneta, S.: The Relation Between Magnetic Fields and Coronal Activities in the Polar Coronal Hole, 2009, *ApJ*, 706, L145.
- Singh, K. A. P. and Krishan, V.: Alfvén-like mode in partially ionized solar atmosphere, 2010, *New Astronomy*, 15, 119.
- Skumanich, A. and Lites, B. W.: Stokes profile analysis and vector magnetic fields. I - Inversion of photospheric lines, 1987, *ApJ*, 322, 473.
- Socas-Navarro, H. et al.: Non-LTE Inversion of Line Profiles, 1998, *ApJ*, 507, 470.
- Socas-Navarro, H. and Manso Sainz, R.: Shocks in the Quiet Solar Photosphere: A Rather Common Occurrence, 2005, *ApJ*, 620, 71.
- Socas-Navarro, H.: Strategies for Spectral Profile Inversion Using Artificial Neural Networks, 2005, *ApJ*, 621, 545.
- Stein, R. F. et al.: Supergranule scale convection simulations, 2006, *ApJ*, 642, 1246.
- Strüder, L. et al. 2003: in "X-ray Evolving-Universe Spectroscopy - The XEUS Instruments", ESA SP-1273, Chapter 3.
- Strüder, L. et al.: XEUS wide-field imager: first experimental results with the x-ray active pixel sensor DEPFET, 2004, *Proc. SPIE*, 5165, 10.
- Suematsu, Y.: Influence of Photospheric 5-Minute Oscillations on the Formation of Chromospheric Fine Structures, 1990, *Progress of Seismology of the Sun and Stars, Proceedings of the Oji International Seminar Held at Hakone, Japan, 11-14 December 1989. Lecture Notes in Physics*, 367, edited by Y. Osaki and H. Shibahashi. Springer-Verlag, Berlin Heidelberg New York, p.211
- Suematsu, Y. et al.: The Solar Optical Telescope of Solar-B (Hinode): The Optical Telescope Assembly, 2008, *Solar Phys.*, 249, 197.
- Suzuki, T. K. and Inutsuka, S.: Making the Corona and the Fast Solar Wind: A Self-consistent Simulation for the Low-Frequency Alfvén Waves from the Photosphere to 0.3 AU, 2005, *ApJ*, 632, 49.
- Teriaca, L. et al.: The Nascent Solar Wind: Origin and Acceleration, 2003, *ApJ*, 588, 566.
- Titov, V. S. and Demoulin, P.: Basic topology of twisted magnetic configurations in solar flares,

- 1999, A & A, 351, 707.
- Tomczyk, S. et al.: Alfvén Waves in the Solar Corona, 2007, Science, 317, 1192.
- Treis, J., Fischer, P., Hälker, O., Harter, M., Herrmann, S., Kohrs, R., Krüger, H., Lechner, P., Lutz, G., Peric, I., Porro, M., Richter, R. H., Strüder, L., Trimpl, M., and Wermes, N. 2005 : IEEE Trans. Nucl. Sci. 52, 1083.
- Trujillo Bueno, J. et al.: Selective absorption processes as the origin of puzzling spectral line polarization from the Sun, 2002, Nature, 415, 403.
- Tsiropoula, G. and Schmieder, B.: Determination of physical parameters in dark mottles, 1997, A&A, 324, 1183.
- Tsuneta, S. et al.: Hot and Superhot Plasmas above an Impulsive Flare Loop, 1997, ApJ, 478, 787.
- Tsuneta and Naito: Fermi Acceleration at the Fast Shock in a Solar Flare and the Impulsive Loop-Top Hard X-Ray Source, 1998, ApJ, 495, 67.
- Tsuneta, S. et al.: The Magnetic Landscape of the Sun's Polar Region, 2008, ApJ, 688, 1374.
- Tsuneta, S. et al.: The Solar Optical Telescope for the Hinode Mission: An Overview, 2008, Solar Phys., 249, 167.
- Tu, C.-Y. et al.: Solar Wind Origin in Coronal Funnels, 2005, Science, 308, 519-523.
- Tziotziou, K.: Chromospheric Cloud-Model Inversion Techniques, 2007, ASP Conference Series, 368, 217.
- Uitenbroek, H.: Operator perturbation method for multi-level line transfer with partial redistribution, 1989, A&A, 213, 360.
- Uitenbroek, H.: Chromospheric Diagnostics, 2006, ASP Conference Series, 354, 313.
- Vecchio, A. et al.: Solar atmospheric oscillations and the chromospheric magnetic topology, 2007, A & A, 461, 1.
- Vernazza, J. E. and Reeves, E. M.: Extreme ultraviolet composite spectra of representative solar features, 1978, ApJ Suppl., 37, 485.
- Warren, H. P. and Doschek, G. A.: Reconciling Hydrodynamic Simulations with Spectroscopic Observations of Solar Flares, 2005, ApJ, 618, 157.
- Warren, H. P. et al.: Observations of Active Region Loops with the EUV Imaging Spectrometer on Hinode, 2008, ApJ, 686, 131.
- Watanabe, K. et al.: G-band and Hard X-ray Emissions of the 2006 December 14 Flare Observed by Hinode/SOT and Rhesi, 2010, ApJ, 715, 651.
- Watanabe, T. et al.: Temperature and Density Structures of Solar Corona - A Test of Iron Line Diagnostic Capability of EIS Instrument on board Hinode, 2007, PASJ, 59, 669.
- Wiegelmann, T. et al.: Can We Improve the Preprocessing of Photospheric Vector Magnetograms by the Inclusion of Chromospheric Observations?, 2008, Solar Phys., 247, 249.
- Wilhelm, K. et al.: On the source regions of the fast solar wind in polar coronal holes, 2000, A & A, 353, 749.
- Wilhelm, K.: Solar coronal-hole plasma densities and temperatures, 2006, A & A, 455, 697.

Yamada, M. et al.: identification of Y-Shaped and O-Shaped Diffusion Regions During Magnetic Reconnection in a Laboratory Plasma, 1997, Physical Review Letters, 78, 3117.

Zweibel, E. G.: Ambipolar diffusion drifts and dynamos in turbulent gases, 1988, ApJ, 329, 384.

Zweibel, E. G.: Magnetic reconnection in partially ionized gases, 1989, ApJ, 340, 550.

Acronyms

16-QAM	16 Quadrature Amplitude Modulation
2FS	Secondary Field Stop
3D	Three dimensional
A/D	Analog to Digital
AIA	Atmospheric Imaging Assembly, SDO
ANN	artificial neural network
AOCS	Attitude and Orbit Control System
APS	Active Pixel Sensor
AR	Active region
ASNARO	Advanced Satellite with New System Architecture for Observation
BF	Broadband filtergraph
BOL	Beginning of life
BS	Beam splitter
CCD	Charge Coupled Device
CDS	Coronal Diagnostic Spectrometer, SOHO
CFRP	Carbon Fiber Reinforced Plastics
CH	Coronal hole
CHIANTI	An Atomic Database for Spectroscopic Diagnostics of Astrophysical Plasmas
CME	Coronal Mass Ejection
CMOS	Complementary Metal Oxide Semiconductor
CMU	Collimator Mirror Unit
CRD	complete angle and frequency redistribution
CT	Correlation Tracker
CTE	Coefficient of thermal expansion
DEM	Differential Emission Measure
EIS	Extreme ultraviolet Imaging Spectrometer, Hinode
EIT	EUV Imaging Telescope, SoHO
EOL	End of life
EQ	Equilibrium

ESA	European Space Agency
EUNIS	Extreme Ultraviolet Normal Incidence Spectrograph
EUV	Extreme Ultraviolet
EUVS	EUV/FUV high-throughput spectrometer
FOV	Field of View
FPGA	Field-Programmable Gate Array
FUV	Far Ultraviolet
FWHM	Full width half maximum
GEO, GSO	Geo-Synchronous Orbit
GOES	Geostationary Operational Environment Satellite
GTO	Geo-Transfer Orbit
HAZEL	Hanle and Zeeman Light (Inversion code)
HDM	Heat Dump Mirror
HPD	Half power diameter
IR	Infrared
IRU	Inertial Reference Unit
IRIS	Interface Region Imaging Spectrograph
ISS	Image stabilization system
ITU	International Telecommunication Union
JAXA	Japan Aerospace Exploration Agency
kG	kilo Gauss
LDE	Long-duration flare event
LVCR	Liquid crystal variable retarder
M1	Primary mirror
M2	Secondary mirror
MET	Microfield Exposure Tool
MHD	Magneto-Hydro-Dynamics
MIB	Momentum wheel Isolation Bench
MK	Million Kelvin
MW	Momentum Wheel
NASA	National Aeronautics and Space Administration

NEN	Near Earth Network
NF	Narrowband filtergraph
NGXT	Next generation X-ray telescope
NI	Normal incident
NIR	Near infrared
NLFFF	non-linear force free field
OBU	Optical Bench Unit
OTA	Optical Telescope Assembly
PC	Photon counting
PCA	Principal component analysis
PCU	Polarization Calibration Unit
QE	Quantum efficiency
QPSK	Quadrature Phase Shift Keying
QS	Quiet Sun
RAISE	Rapid Acquisition Imaging Spectrograph Experiment
RHESSI	Reuven Ramaty High Energy Solar Spectroscopic Imager
RMS	Root mean square
SDO	Solar Dynamics Observatory
SFCG	Space Frequency Coordination Group
SIR	Stokes inversion based on response function
SMEX	Small Explorer
S/N	Signal-to-Noise
SOHO	Solar and Heliospheric Observatory
SOT	Solar Optical Telescope, Hinode
SP	Spectro-Polarimeter
SSO	Sun-synchronous polar orbit
SSPA	Solid State Power Amplifier
STEREO	Solar TERrestrial RELations Observatory
SUMER	Solar Ultraviolet Measurements of Emitted Radiation, SOHO
SUVIT	Solar UV-Visible-IR Telescope
SXT	Yohkoh Soft X-ray Telescope

TBD	To be determined
TF	Tunable filter
TRACE	The Transition Region and Coronal Explorer
LTE	Local thermodynamic equilibrium
TM	Tip-tilt mirror
TR	Transition Region
TRACE	Transition Region and Coronal Explorer
TWTA	Travelling Wave Tube Amplifier
UFSS	Ultra Fine Sun Sensor
USC	Uchinoura Space Center
UV	Ultraviolet
UVCS	Ultraviolet Coronagraph Spectrometer, SOHO
VERIS	VERY high angular Resolution Imaging Spectrometer
WFS	Wavefront sensor
WP	Wave plate
XIT	X-ray Imaging Telescope
XRT	X-ray Telescope, Hinode

