

Bibliography from ADS file: borrero.bib

September 14, 2022

- Pastor Yabar, A., Borrero, J. M., Quintero Noda, C., & Ruiz Cobo, B., “*Inference of electric currents in the solar photosphere*”, 2021A&A...656L..20P [ADS](#)
- Borrero, J. M., Pastor Yabar, A., & Ruiz Cobo, B., “*Combining magneto-hydrostatic constraints with Stokes profiles inversions. II. Application to Hinode/SP observations*”, 2021A&A...647A.190B [ADS](#)
- Fischer, C. E., Vigeesh, G., Lindner, P., et al., “*Interaction of Magnetic Fields with a Vortex Tube at Solar Subgranular Scale*”, 2020ApJ...903L..10F [ADS](#)
- Kaithakkal, A. J., Borrero, J. M., Fischer, C. E., Dominguez-Tagle, C., & Collados, M., “*Evolution of Stokes V area asymmetry related to a quiet Sun cancellation observed with GRIS/IFU*”, 2020A&A...634A.131K [ADS](#)
- Borrero, J. M., Pastor Yabar, A., Rempel, M., & Ruiz Cobo, B., “*Combining magnetohydrostatic constraints with Stokes profiles inversions. I. Role of boundary conditions*”, 2019A&A...632A.111B [ADS](#)
- Borrero, J. M., Pastor Yabar, A., Rempel, M., & Ruiz Cobo, B., “*Combining magneto-hydrostatic constraints with Stokes profiles inversions*”, 2019arXiv191014131B [ADS](#)
- Pastor Yabar, A., Borrero, J. M., & Ruiz Cobo, B., “*FIRTEZ-dz. A forward and inverse solver of the polarized radiative transfer equation under Zeeman regime in geometrical scale*”, 2019A&A...629A..24P [ADS](#)
- Fischer, C. E., Borrero, J. M., Bello González, N., & Kaithakkal, A. J., “*Observations of solar small-scale magnetic flux-sheet emergence*”, 2019A&A...622L..12F [ADS](#)
- Kiess, C., Borrero, J. M., & Schmidt, W., “*Three-lobed near-infrared Stokes V profiles in the quiet Sun*”, 2018A&A...616A.109K [ADS](#)
- Borrero, J. M., Jafarzadeh, S., Schüssler, M., & Solanki, S. K., “*Solar Magnetoconvection and Small-Scale Dynamo*”, in A. Balogh, E. Cliver, G. Petrie, S. Solanki, M. Thompson, and R. von Steiger (Eds.), Solar Magnetic Fields. Series: Space Sciences Series of ISSI, Vol. 57, 275–316 2018smf..book..275B [ADS](#)
- Borrero, J. M., Jafarzadeh, S., Schüssler, M., & Solanki, S. K., “*Solar Magnetoconvection and Small-Scale Dynamo. Recent Developments in Observation and Simulation*”, 2017SSRv..210..275B [ADS](#)
- Borrero, J. M., Franz, M., Schlichenmaier, R., Collados, M., & Asensio Ramos, A., “*Penumbral thermal structure below the visible surface*”, 2017A&A...601L..8B [ADS](#)
- Lites, B. W., Rempel, M., Borrero, J. M., & Danilovic, S., “*Are Internet-work Magnetic Fields in the Solar Photosphere Horizontal or Vertical?*”, 2017ApJ...835...14L [ADS](#)
- Lagg, A., Solanki, S. K., Doerr, H. P., et al., “*Probing deep photospheric layers of the quiet Sun with high magnetic sensitivity*”, 2016A&A...596A..6L [ADS](#)
- Franz, M., Collados, M., Bethge, C., et al., “*Magnetic fields of opposite polarity in sunspot penumbrae*”, 2016A&A...596A..4F [ADS](#)
- Borrero, J. M., Asensio Ramos, A., Collados, M., et al., “*Deep probing of the photospheric sunspot penumbra: no evidence of field-free gaps*”, 2016A&A...596A..2B [ADS](#)
- Falco, M., Borrero, J. M., Guglielmino, S. L., et al., “*Kinematics and Magnetic Properties of a Light Bridge in a Decaying Sunspot*”, 2016SoPh..291.1939F [ADS](#)
- Gorobets, A. Y., Borrero, J. M., & Berdyugina, S., “*Markov Properties of the Magnetic Field in the Quiet Solar Photosphere*”, 2016ApJ...825L..18G [ADS](#)
- Wiegelmünn, T., Neukirch, T., Nickeler, D. H., et al., “*Magneto-static Modeling of the Mixed Plasma Beta Solar Atmosphere Based on Sunrise/IMaX Data*”, 2015ApJ...815...10W [ADS](#)
- Rezaei, R., Beck, C., Lagg, A., et al., “*Variation in sunspot properties between 1999 and 2014*”, 2015A&A...578A..43R [ADS](#)
- Borrero, J. M., Lites, B. W., Lagg, A., Rezaei, R., & Rempel, M., “*Comparison of inversion codes for polarized line formation in MHD simulations. I. Milne-Eddington codes*”, 2014A&A...572A..54B [ADS](#)
- Quintero Noda, C., Borrero, J. M., Orozco Suárez, D., & Ruiz Cobo, B., “*High speed magnetized flows in the quiet Sun*”, 2014A&A...569A..73Q [ADS](#)
- Quintero Noda, C., Martínez Pillet, V., Borrero, J. M., & Solanki, S. K., “*Temporal relation between quiet-Sun transverse fields and the strong flows detected by IMaX/SUNRISE*”, 2013A&A...558A..30Q [ADS](#)
- Borrero, J. M., Martínez Pillet, V., Schmidt, W., et al., “*Is Magnetic Reconnection the Cause of Supersonic Upflows in Granular Cells?*”, 2013ApJ...768...69B [ADS](#)
- Wiegelmünn, T., Solanki, S. K., Borrero, J. M., et al., “*Evolution of the Fine Structure of Magnetic Fields in the Quiet Sun: Observations from Sunrise/IMaX and Extrapolations*”, 2013SoPh..283..253W [ADS](#)
- Wiegelmünn, T., Solanki, S., Borrero, J., Peter, H., & Sunrise Team, “*Evolution of the Fine Structure of Magnetic Fields in the Quiet Sun: Observations from Sunrise/IMaX and Extrapolations*”, 2013EGUGA..15.5251W [ADS](#)
- Borrero, J. M. & Kobel, P., “*Inferring the magnetic field vector in the quiet Sun. III. Disk variation of the Stokes profiles and isotropism of the magnetic field*”, 2013A&A...550A..98B [ADS](#)
- Borrero, J. M. & Kobel, P., “*Inferring the magnetic field vector in the quiet Sun. II. Interpreting results from the inversion of Stokes profiles*”, 2012A&A...547A..89B [ADS](#)
- Kobel, P., Solanki, S. K., & Borrero, J. M., “*The continuum intensity as a function of magnetic field. II. Local magnetic flux and convective flows*”, 2012A&A...542A..96K [ADS](#)
- Liu, Y., Scherrer, P. H., Hoeksema, J. T., et al., “*A First Look at Magnetic Field Data Products from SDO/HMI*”, 2012ASPC..455..337L [ADS](#)
- Borrero, J. M., Pillet, V. M., Schlichenmaier, R., et al., “*Supersonic Magnetic Flows in the Quiet Sun Observed with SUNRISE/IMaX*”, 2012ASPC..455..155B [ADS](#)
- Solanki, S. K., Barthol, P., Danilovic, S., et al., “*First Results from the SUNRISE Mission*”, 2012ASPC..455..143S [ADS](#)
- Schou, J., Borrero, J. M., Norton, A. A., et al., “*Polarization Calibration of the Helioseismic and Magnetic Imager (HMI) onboard the Solar Dynamics Observatory (SDO)*”, 2012SoPh..275..327S [ADS](#)
- Wiegelmünn, T., Solanki, S., Borrero, J., Martínez Pillet, V., & Sunrise Team, “*Evolution of the fine structure of magnetic fields in the quiet Sun: Combining Sunrise observations and modelling*”, 2011AGUFMSH41B..06W [ADS](#)
- Centeno, R., Barnes, G., Borrero, J., et al., “*HMI vector magnetic field products: the long-awaited release has come! Now what?*”, 2011AGUFMSH31A1985C [ADS](#)
- Borrero, J. M., Tomczyk, S., Kubo, M., et al., “*VFISV: Very Fast Inversion of the Stokes Vector for the Helioseismic and Magnetic Imager*”, 2011SoPh..273..267B [ADS](#)
- Borrero, J. M. & Ichimoto, K., “*Magnetic Structure of Sunspots*”, 2011LRSP...8...4B [ADS](#)
- Solanki, S. K., Barthol, P., Danilovic, S., et al., “*The Sun at high resolution: first results from the Sunrise mission*”, 2011IAUS..273..226S [ADS](#)
- Kobel, P., Solanki, S. K., & Borrero, J. M., “*The continuum intensity as a function of magnetic field. I. Active region and quiet Sun magnetic elements*”, 2011A&A...531A.112K [ADS](#)
- Kobel, P., Solanki, S. K., & Borrero, J. M., “*The Continuum Contrast of Magnetic Elements as a Function of Magnetic Field (Disk Center): Early Studies and Hinode/SP Results*”, 2011ASPC..437..297K [ADS](#)
- Centeno, R., Tomczyk, S., Borrero, J. M., et al., “*HMI: First Results*”, 2011ASPC..437..147C [ADS](#)
- Borrero, J. M. & Kobel, P., “*Inferring the magnetic field vector in the quiet Sun. I. Photon noise and selection criteria*”, 2011A&A...527A..29B [ADS](#)
- Wiegelmünn, T., Solanki, S. K., Borrero, J. M., et al., “*Magnetic Loops in the Quiet Sun*”, 2010ApJ...723L.185W [ADS](#)
- Lagg, A., Solanki, S. K., Riethmüller, T. L., et al., “*Fully Resolved Quiet-Sun Magnetic flux Tube Observed with the SUNRISE/IMAX Instrument*”, 2010ApJ...723L.164L [ADS](#)
- Hirzberger, J., Feller, A., Riethmüller, T. L., et al., “*Quiet-sun Intensity Contrasts in the Near-ultraviolet as Measured from SUNRISE*”, 2010ApJ...723L.154H [ADS](#)
- Borrero, J. M., Martínez-Pillet, V., Schlichenmaier, R., et al., “*Supersonic Magnetic Upflows in Granular Cells Observed with SUNRISE/IMAX*”, 2010ApJ...723L.144B [ADS](#)
- Hirzberger, J., Feller, A., Riethmüller, T. L., et al., “*Quiet-Sun intensity contrasts in the near ultraviolet*”, 2010arXiv1009.1050H [ADS](#)
- Borrero, J. M., Rempel, M., & Solanki, S. K., “*Spectropolarimetric analysis of 3D MHD sunspot simulations*”, 2010AN...331..567B [ADS](#)
- Hirzberger, J., Feller, A., Riethmüller, T., et al., “*UV intensity distributions of the quiet Sun observed with Sunrise*”, 2010cosp...38.1735H [ADS](#)
- Borrero, J. M. & Solanki, S. K., “*Convective Motions and Net Circular Polarization in Sunspot Penumbrae*”, 2010ApJ...709..349B [ADS](#)
- Borrero, J. M., “*Models and observations of sunspot penumbrae*”, 2009ScChG..52.1670B [ADS](#)
- Yang, S., Zhang, J., & Borrero, J. M., “*Dipolar Evolution in a Coronal Hole Region*”, 2009ApJ...703.1012Y [ADS](#)
- Borrero, J. M. & Solanki, S. K., “*Are There Field-Free Gaps near $\tau = 1$ in Sunspot Penumbrae?*”, 2008ApJ...687..668B [ADS](#)
- Bellot Rubio, L. R. & Borrero, J. M., “*Solar spectropolarimetry at high spatial resolution: Quiet-Sun magnetic fields*”, 2008ESPM...12..2.4B [ADS](#)
- Borrero, J. M., Lites, B. W., & Solanki, S. K., “*Evidence of magnetic field wrapping around penumbral filaments*”, 2008A&A...481L..13B [ADS](#)
- Socas-Navarro, H., Borrero, J. M., Asensio Ramos, A., et al., “*Multiline Spectropolarimetry of the Quiet Sun at 5250 and 6302 Å*”, 2008ApJ...674..596S [ADS](#)
- Borrero, J. M., “*On the Role of Magnetic Fields in Abundance Determinations*”, 2008ApJ...673..470B [ADS](#)

- Cabrera Solana, D., Bellot Rubio, L. R., Borrero, J. M., & Del Toro Iniesta, J. C., “*Temporal evolution of the Evershed flow in sunspots. II. Physical properties and nature of Evershed clouds*”, 2008A&A...477..273C [ADS](#)
- Socas-Navarro, H., Borrero, J., Asensio Ramos, A., et al., “*Multi-Line Quiet Sun Spectro-Polarimetry at 5250 and 6302 Å*”, 2007arXiv0710.1099S [ADS](#)
- Borrero, J. M., Bellot Rubio, L. R., & Müller, D. A. N., “*Flux Tubes as the Origin of Net Circular Polarization in Sunspot Penumbrae*”, 2007ApJ...666L.133B [ADS](#)
- Borrero, J. M., “*The structure of sunspot penumbrae. IV. MHS equilibrium for penumbral flux tubes and the origin of dark core penumbral filaments and penumbral grains*”, 2007A&A...471..967B [ADS](#)
- Bloomfield, D. S., Solanki, S. K., Lagg, A., Borrero, J. M., & Cally, P. S., “*Modified p-modes in penumbral filaments?*”, 2007A&A...469.1155B [ADS](#)
- Bloomfield, D. S., Lagg, A., Solanki, S. K., & Borrero, J. M., “*Modified p-modes in penumbral filaments*”, 2007msfa.conf..241B [ADS](#)
- Borrero, J. M., Tomczyk, S., Norton, A., et al., “*Magnetic Field Vector Retrieval With the Helioseismic and Magnetic Imager*”, 2007SoPh..240..177B [ADS](#)
- Borrero, J. M., Tomczyk, S., Norton, A. A., et al., “*Magnetic Field Vector Retrieval with HMI*”, 2006ASPC..358..144B [ADS](#)
- Borrero, J. M., Rempel, M., & Solanki, S. K., “*The Uncombed Penumbra*”, 2006ASPC..358..19B [ADS](#)
- Borrero, J. M., Solanki, S. K., Lagg, A., Socas-Navarro, H., & Lites, B., “*On the fine structure of sunspot penumbrae. III. The vertical extension of penumbral filaments*”, 2006A&A...450..383B [ADS](#)
- Borrero, J. M., Rempel, M., & Solanki, S. K., “*The uncombed penumbra*”, 2006astro.ph..2129B [ADS](#)
- Borrero, J. M., Lagg, A., Solanki, S. K., & Collados, M., “*On the fine structure of sunspot penumbrae. II. The nature of the Evershed flow*”, 2005A&A...436..333B [ADS](#)
- Borrero, J. M., Solanki, S. K., Bellot Rubio, L. R., Lagg, A., & Mathew, S. K., “*On the fine structure of sunspot penumbrae. I. A quantitative comparison of two semiempirical models with implications for the Evershed effect*”, 2004A&A...422.1093B [ADS](#)
- Mathew, S. K., Solanki, S. K., Lagg, A., et al., “*Thermal-magnetic relation in a sunspot and a map of its Wilson depression*”, 2004A&A...422..693M [ADS](#)
- Borrero, J. M.: 2004, “*The fine structure of the sunspot penumbra*”, Ph.D. thesis, Georg August University of Gottingen, Germany 2004PhDT.....307B [ADS](#)
- Mathew, S. K., Lagg, A., Solanki, S. K., et al., “*Three dimensional structure of a regular sunspot from the inversion of IR Stokes profiles*”, 2003A&A...410..695M [ADS](#)
- Lagg, A., Woch, J., Solanki, S. K., et al., “*Infrared Polarimetry at the MPae: The Solar Atmosphere from the Photosphere to the Upper Chromosphere*”, 2003ANS...324..29L [ADS](#)
- Borrero, J. M., Bellot Rubio, L. R., Barklem, P. S., & del Toro Iniesta, J. C., “*Accurate atomic parameters for near-infrared spectral lines*”, 2003A&A...404..749B [ADS](#)
- Borrero, J. M. & Bellot Rubio, L. R., “*Two-Component Modeling of Convective Motions in the Solar Photosphere and Determination of Atomic Parameters*”, 2003IAUS..210P..C9B [ADS](#)
- Bellot Rubio, L. R., Borrero, J. M., Barklem, P., & del Toro Iniesta, J. C., “*Accurate Atomic Parameters from the Solar Spectrum*”, 2003IAUJD..20E..16B [ADS](#)
- Borrero, J. M., Lagg, A., Solanki, S. K., et al., “*Modeling the Fine Structure of a Sunspot Penumbra through the Inversion of Stokes Profiles*”, 2003ASPC..286..235B [ADS](#)
- Bellot Rubio, L. R. & Borrero, J. M., “*Iron abundance in the solar photosphere. Application of a two-component model atmosphere*”, 2002A&A...391..331B [ADS](#)
- Borrero, J. M. & Bellot Rubio, L. R., “*A two-component model of the solar photosphere from the inversion of spectral lines*”, 2002A&A...385.1056B [ADS](#)