

Bibliography from ADS file: hirzberger.bib
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- Sinjan, J., Calchetti, D., Hirzberger, J., et al., “The on-ground data reduction and calibration pipeline for SO/PHI-HRT”, 2022arXiv220814904S ADS
- Posner, A., Toit Strauss, D., Solanki, S. K., et al., “The essential role of Earth-Sun L4 in solar particle event forecasting for Lunar and Mars exploration”, 2022cosp...44.1157P ADS
- Kahil, F., Hirzberger, J., Solanki, S. K., et al., “The magnetic drivers of campfires seen by the Polarimetric and Helioseismic Imager (PHI) on Solar Orbiter”, 2022A&A...660A.143K ADS
- Valori, G., Löschl, P., Stansby, D., et al., “Disambiguation of Vector Magnetograms by Stereoscopic Observations from the Solar Orbiter (SO)/Polarimetric and Helioseismic Imager (PHI) and the Solar Dynamic Observatory (SDO)/Helioseismic and Magnetic Imager (HMI)”, 2022SoPh...297...12V ADS
- Romero Avila, A., Inhester, B., Hirzberger, J., & Solanki, S., “Solar Surface Stereoscopia with Solar Orbiter’s Polarimetric Helioseismic Imager (SO/PHI)”, 2021AGUFM5H25B2095R ADS
- Posner, A., Arge, C. N., Staub, J., et al., “A Multi-Purpose Heliophysics L4 Mission”, 2021SpWea...1902777P ADS
- Albert, K., Hirzberger, J., Kolleck, M., et al., “First results from SO/PHI’s on-board data reduction”, 2020AGUFM5H038...05A ADS
- Löschl, P., Hirzberger, J., Schou, J., & Solanki, S. K., “Multi-view magnetic synoptic maps with SO/PHI and SDO/HMI”, 2020AGUFM5H0360028L ADS
- Prabhu, A., Lagg, A., Hirzberger, J., & Solanki, S. K., “The magnetic fine structure of the Sun’s polar region as revealed by Sunrise”, 2020A&A...644A...86P ADS
- Yelles Chaouche, L., Cameron, R. H., Solanki, S. K., et al., “Power spectrum of turbulent convection in the solar photosphere”, 2020A&A...644A...44Y ADS
- Staub, J., Fernandez-Rico, G., Gandorfer, A., et al., “PMI: The Photospheric Magnetic Field Imager”, 2020JWSC...10...54S ADS
- Albert, K., Hirzberger, J., Kolleck, M., et al., “Autonomous on-board data processing and instrument calibration software for the Polarimetric and Helioseismic Imager on-board the Solar Orbiter mission”, 2020JATIS...6d8004A ADS
- Solanki, S. K., del Toro Iniesta, J. C., Woch, J., et al., “The Polarimetric and Helioseismic Imager on Solar Orbiter”, 2020A&A...642A...11S ADS
- Auchère, F., Andretta, V., Antonucci, E., et al., “Coordination within the remote sensing payload on the Solar Orbiter mission”, 2020A&A...642A...6A ADS
- Zouganelis, I., De Groof, A., Walsh, A. P., et al., “The Solar Orbiter Science Activity Plan. Translating solar and heliospheric physics questions into action”, 2020A&A...642A...3Z ADS
- Rouillard, A. P., Pinto, R. F., Vourlidas, A., et al., “Models and data analysis tools for the Solar Orbiter mission”, 2020A&A...642A...2R ADS
- Solanki, S. K., Hirzberger, J., Wiegmann, T., et al., “The SO/PHI instrument on Solar Orbiter and its data products”, 2020EGUGA...2217904S ADS
- Albert, K., Hirzberger, J., Busse, D., et al., “Metadata and Their Importance in SO/PHI’s On-Board Data Processing”, 2020ASPC...527...599A ADS
- Lange, T., Fiethe, B., Guan, Y., et al., “A flexible and heterogeneous framework for scientific image data processing on-board the Solar Orbiter PHI instrument”, 2019SPIE11155E...06L ADS
- Albert, K., Hirzberger, J., Busse, D., et al., “Performance Analysis of the SO/PHI Software Framework for On-board Data Reduction”, 2019ASPC...523...151A ADS
- Blanco Rodríguez, J., del Toro Iniesta, J. C., Orozco Suárez, D., et al.: 2018a, *SOPHISM: Software Instrument Simulator*, Astrophysics Source Code Library, record ascl:1810.017 2018ascl.soft10017B ADS
- Blanco Rodríguez, J., del Toro Iniesta, J. C., Orozco Suárez, D., et al., “SOPHISM: An End-to-end Software Instrument Simulator”, 2018ApJS...237...35B ADS
- Hernández Expósito, D., Cobos Carrascosa, J. P., Ramos Mas, J. L., et al., “Image compression on reconfigurable FPGA for the SO/PHI space instrument”, 2018SPIE10707E...2FH ADS
- Albert, K., Hirzberger, J., Busse, D., et al., “Autonomous on-board data processing and instrument calibration software for the SO/PHI”, 2018SPIE10707E...00A ADS
- Gandorfer, A., Grauf, B., Staub, J., et al., “The High Resolution Telescope (HRT) of the Polarimetric and Helioseismic Imager (PHI) onboard Solar Orbiter”, 2018SPIE10698E...4NG ADS
- Gorobets, A. Y., Berdyugina, S. V., Riethmüller, T. L., et al., “The Maximum Entropy Limit of Small-scale Magnetic Field Fluctuations in the Quiet Sun”, 2017ApJS...233...5G ADS
- Joshi, J., Lagg, A., Hirzberger, J., & Solanki, S. K., “Three-dimensional magnetic structure of a sunspot: Comparison of the photosphere and upper chromosphere”, 2017A&A...604A...98J ADS
- Gafeira, R., Lagg, A., Solanki, S. K., et al., “Erratum: Morphological Properties of Slender Ca II H Fibrils Observed by sunrise II (ApJS 229, 1, 6”, 2017ApJS...230...11G ADS
- Jafarzadeh, S., Rutten, R. J., Solanki, S. K., et al., “Slender Ca II H Fibrils Mapping Magnetic Fields in the Low Solar Chromosphere”, 2017ApJS...229...11J ADS
- Wiegmann, T., Neukirch, T., Nickeler, D. H., et al., “Magneto-static Modeling from Sunrise/IMaX: Application to an Active Region Observed with Sunrise II”, 2017ApJS...229...18W ADS
- Riethmüller, T. L., Solanki, S. K., Barthol, P., et al., “A New MHD-assisted Stokes Inversion Technique”, 2017ApJS...229...16R ADS
- Requerey, I. S., Ruiz Cobo, B., Del Toro Iniesta, J. C., et al., “Spectropolarimetric Evidence for a Siphon Flow along an Emerging Magnetic Flux Tube”, 2017ApJS...229...15R ADS
- Kaithakkal, A. J., Riethmüller, T. L., Solanki, S. K., et al., “Moving Magnetic Features around a Pore”, 2017ApJS...229...13K ADS
- Jafarzadeh, S., Solanki, S. K., Gafeira, R., et al., “Transverse Oscillations in Slender Ca II H Fibrils Observed with Sunrise/SuFT”, 2017ApJS...229...9J ADS
- Jafarzadeh, S., Solanki, S. K., Cameron, R. H., et al., “Kinematics of Magnetic Bright Features in the Solar Photosphere”, 2017ApJS...229...8J ADS
- Gafeira, R., Jafarzadeh, S., Solanki, S. K., et al., “Oscillations on Width and Intensity of Slender Ca II H Fibrils from Sunrise/SuFT”, 2017ApJS...229...7G ADS
- Gafeira, R., Lagg, A., Solanki, S. K., et al., “Morphological Properties of Slender Ca II H Fibrils Observed by SUNRISE II”, 2017ApJS...229...6G ADS
- Danilovic, S., Solanki, S. K., Barthol, P., et al., “Photospheric Response to an Ellerman Bomb-like Event-An Analogy of Sunrise/IMaX Observations and MHD Simulations”, 2017ApJS...229...5D ADS
- Chitta, L. P., Peter, H., Solanki, S. K., et al., “Solar Coronal Loops Associated with Small-scale Mixed Polarity Surface Magnetic Fields”, 2017ApJS...229...4C ADS
- Centeno, R., Blanco Rodríguez, J., Del Toro Iniesta, J. C., et al., “A Tale of Two Emergences: Sunrise II Observations of Emergence Sites in a Solar Active Region”, 2017ApJS...229...3C ADS
- Solanki, S. K., Riethmüller, T. L., Barthol, P., et al., “The Second Flight of the Sunrise Balloon-borne Solar Observatory: Overview of Instrument Updates, the Flight, the Data, and First Results”, 2017ApJS...229...2S ADS
- Joshi, J., Lagg, A., Hirzberger, J., Solanki, S. K., & Tiwari, S. K., “Vertical magnetic field gradient in the photospheric layers of sunspots”, 2017A&A...599A...35J ADS
- Anusha, L. S., Solanki, S. K., Hirzberger, J., & Feller, A., “Statistical evolution of quiet-Sun small-scale magnetic features using Sunrise observations”, 2017A&A...598A...47A ADS
- Löptien, B., Birch, A. C., Gizon, L., et al., “Helioseismology with Solar Orbiter”, in M. J. Thompson, A. S. Brun, J. L. Culhane, L. Gizon, M. Roth, and T. Sekii (Eds.), *Helioseismology and Dynamics of the Solar Interior*. Series: Space Sciences Series of ISSI, Vol. 48, 257–289 2017hdsi.book...257L ADS
- Bharti, L., Solanki, S. K., & Hirzberger, J., “Lambda-shaped jets from a penumbral intrusion into a sunspot umbra: a possibility for magnetic reconnection”, 2017A&A...597A.127B ADS
- Appourchoux, T., Birch, A., Gizon, L. C., et al., “Far side Helioseismology with Solar Orbiter”, 2016AGUFM5H43A2554A ADS
- Sanchis Kilders, E., Meller, R., López Jimenez, A., et al., “Radiated Emissions of the Power Converter Module of the Polarimetric and Helioseismic Imager Instrument On Board of Solar Orbiter: A Case Study”, 2016ESASP.738E...2S ADS
- Löptien, B., Birch, A. C., Gizon, L., et al., “Helioseismology with Solar Orbiter”, 2015SSRv...196...251L ADS
- Berrilli, F., Soffitta, P., Velli, M., et al., “ADAHeli: exploring the fast, dynamic Sun in the x-ray, optical, and near-infrared”, 2015JATIS...1d4006B ADS
- Solanki, S. K., del Toro Iniesta, J. C., Woch, J., et al., “The Polarimetric and Helioseismic Imager for Solar Orbiter: SO/PHI”, 2015IAUS...305...108S ADS
- Bharti, L., Solanki, S. K., & Hirzberger, J., “Magnetic reconnection as a source of jets from a penumbral intrusion into a sunspot umbra”, 2015arXiv150902123B ADS
- Kobel, P., Hirzberger, J., & Solanki, S. K., “Discriminant analysis of solar bright points and faculae II. Contrast and morphology analysis”, 2014arXiv1410.5354K ADS
- Anusha, L. S., Feller, A., Hirzberger, J., & Solanki, S. K., “Evolution of Small Scale Magnetic Structures from Sunrise Data”, 2014ASPC...489...83A ADS

- Riethmüller, T. L., Solanki, S. K., Berdyugina, S. V., et al., “Comparison of solar photospheric bright points between Sunrise observations and MHD simulations”, 2014A&A...568A..13R ADS
- Danilovic, S., Hirzberger, J., Riethmüller, T. L., et al., “Comparison between Mg II k and Ca II H Images Recorded by SUNRISE/SuFI”, 2014ApJ...784...20D ADS
- Riethmüller, T. L., Solanki, S. K., Hirzberger, J., et al., “First High-resolution Images of the Sun in the 2796 Å Mg II k Line”, 2013ApJ...776L..13R ADS
- Bharti, L., Hirzberger, J., & Solanki, S. K., “Fine structures in the atmosphere above a sunspot umbra”, 2013A&A...552L...1B ADS
- Puschmann, K. G., Denker, C., Kneer, F., et al., “The GREGOR Fabry-Pérot Interferometer”, 2012AN...333..880P ADS
- Feller, A., Krishnappa, N., Pleier, O., et al., “Reflectivity, polarization properties, and durability of metallic mirror coatings for the European Solar Telescope”, 2012SPIE.8450E..3UF ADS
- Calcines, A., Collados, M., Feller, A., et al., “Multi-purpose grating spectrograph for the 4-meter European Solar Telescope”, 2012SPIE.8446E..6TC ADS
- Bharti, L., Cameron, R. H., Rempel, M., Hirzberger, J., & Solanki, S. K., “Waves as the Source of Apparent Twisting Motions in Sunspot Penumbrae”, 2012ApJ...752..128B ADS
- Solanki, S. K., Barthol, P., Danilovic, S., et al., “First Results from the SUNRISE Mission”, 2012ASPC...455..143S ADS
- Macdonald, G. A., Hirzberger, J., Solanki, S., & Choudhary, D. P., “Fast Up-flows Observed on Granules with Sunrise”, 2011AGUFMSh13B1985M ADS
- Pietarila, A. M., Aznar Cuadrado, R., Hirzberger, J., & Solanki, S., “Chromospheric Observations of a Kink Wave in an On-disk Active Region Fibril”, 2011AGUFMSh13B1951P ADS
- Joshi, J., Pietarila, A., Hirzberger, J., et al., “Erratum: “Convective Nature of Sunspot Penumbra Filaments: Discovery of Downflows in the Deep Photosphere” (2011, ApJ, 734, L18)”, 2011ApJ...740L..55J ADS
- Pietarila, A., Aznar Cuadrado, R., Hirzberger, J., & Solanki, S. K., “Kink Waves in an Active Region Dynamic Fibril”, 2011ApJ...739...92P 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
- Joshi, J., Pietarila, A., Hirzberger, J., et al., “Convective Nature of Sunspot Penumbra Filaments: Discovery of Downflows in the Deep Photosphere”, 2011ApJ...734L..18J ADS
- Hirzberger, J., Feller, A., Riethmüller, T. L., Gandorfer, A., & Solanki, S. K., “Performance validation of phase diversity image reconstruction techniques”, 2011A&A...529A.132H ADS
- Gandorfer, A., Grauf, B., Barthol, P., et al., “The Filter Imager SuFI and the Image Stabilization and Light Distribution System ISLiD of the Sunrise Balloon-Borne Observatory: Instrument Description”, 2011SoPh...268...35G ADS
- Barthol, P., Gandorfer, A., Solanki, S. K., et al., “The Sunrise Mission”, 2011SoPh...268...1B ADS
- Riethmüller, T. L., Solanki, S. K., Martínez Pillet, V., et al., “Bright Points in the Quiet Sun as Observed in the Visible and Near-UV by the Balloon-borne Observatory SUNRISE”, 2010ApJ...723L.169R 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
- Solanki, S. K., Barthol, P., Danilovic, S., et al., “SUNRISE: Instrument, Mission, Data, and First Results”, 2010ApJ...723L.127S ADS
- Bharti, L., Solanki, S. K., & Hirzberger, J., “Evidence for Convection in Sunspot Penumbrae”, 2010ApJ...722L.194B ADS
- Hirzberger, J., Feller, A., Riethmüller, T. L., et al., “Quiet-Sun intensity contrasts in the near ultraviolet”, 2010arXiv1009.1050H ADS
- Calcines, A., Collados, M., Feller, A., et al., “Spectrograph capabilities of the European Solar Telescope”, 2010SPIE.7735E..20C ADS
- Gandorfer, A., Barthol, P., Feller, A., et al., “The Ultraviolet Filter Imager (SuFI) onboard the Sunrise balloon-borne solar observatory: Instrument description and first results”, 2010cosp...38.4064G ADS
- Barthol, P., Chares, B., Deutsch, W., et al., “High resolution imaging and polarimetry with SUNRISE, a balloon-borne stratospheric solar observatory”, 2010cosp...38.4063B ADS
- Jafarzadeh, S., Hirzberger, J., Feller, A., et al., “Relation between the Sunrise photospheric magnetic field and the Ca II H bright features”, 2010cosp...38.2856J ADS
- Hirzberger, J., Feller, A., Riethmüller, T., et al., “UV intensity distributions of the quiet Sun observed with Sunrise”, 2010cosp...38.1735H ADS
- Hirzberger, J., Riethmüller, T., Lagg, A., Solanki, S. K., & Kobel, P., “High-resolution spectro-polarimetry of a flaring sunspot penumbra”, 2009A&A...505..771H ADS
- Pietarila, A., Hirzberger, J., Zakharov, V., & Solanki, S. K., “Bright fibrils in Ca II K”, 2009A&A...502..647P ADS
- Kobel, P., Hirzberger, J., Solanki, S. K., Gandorfer, A., & Zakharov, V., “Discriminant analysis of solar bright points and faculae. I. Classification method and center-to-limb distribution”, 2009A&A...502..303K ADS
- Kobel, P., Hirzberger, J., Zakharov, V., Gandorfer, A., & Solanki, S. K., “Center to Limb Distribution of Bright Points and Faculae: First Results of an Automated Detection Algorithm”, 2009ASPC...405..211K ADS
- Hirzberger, J., Riethmüller, T., Solanki, S. K., & Kobel, P., “Multi-Channel Observations of a Solar Flare”, 2009ASPC...405..125H ADS
- Hirzberger, J., Gizon, L., Solanki, S. K., & Duvall, T. L., “Structure and Evolution of Supergranulation from Local Helioseismology”, 2008SoPh...251..417H ADS
- Kobel, P., Hirzberger, J., Gandorfer, A., Solanki, S. K., & Zakharov, V., “Discriminant Analysis of Bright Points and Faculae: Center-to-Limb Distribution, Contrast and Morphology”, 2008ESPM...12.2.60K ADS
- Pietarila, A., Solanki, S., Hirzberger, J., & Zakharov, V., “Fibrils in Ca II K”, 2008ESPM...12.2.51P ADS
- Zakharov, V., Hirzberger, J., Riethmüller, T. L., Solanki, S. K., & Kobel, P., “Evidence of convective rolls in a sunspot penumbra”, 2008A&A...488L..17Z ADS
- Hirzberger, J., Wiehr, E., & Stellmacher, G., “Imaging of the He D₃/H β Emission Ratio in Quiescent Solar Prominences”, 2007ASPC...368..321H ADS
- Wiehr, E., Stellmacher, G., & Hirzberger, J., “Two-dimensional imaging of the HeD₃/H[Beta] emission ratio in quiescent solar prominences”, 2007msfa.conf...261W ADS
- Hirzberger, J., Gizon, L., Solanki, S. K., & Duvall, T. L., “Structure and evolution of supergranulation from local helioseismology”, 2007msfa.conf...103H ADS
- Wiehr, E., Stellmacher, G., & Hirzberger, J., “Two-Dimensional Mapping of the He D₃/H β Emission Ratio in Solar Prominences”, 2007SoPh...240...25W ADS
- Stellmacher, G., Wiehr, E., & Hirzberger, J., “Two-dimensional imaging of the He D₃/Hbeta emission ratio in quiescent solar prominences”, 2007MmSAI...78..108S ADS
- Lagg, A., Yelles, L., Hirzberger, J., Woch, J., & Solanki, S. K., “The Performance Of The SOLO-VIM Instrument: Effects Of Instrumental Noise And Lossy Data Compression”, 2007ESASP.641E..69L ADS
- Yelles, L., Hirzberger, J., Lagg, A., et al., “Simulations Of Science Data Of The Solo-VIM Instrument”, 2007ESASP.641E..34Y ADS
- Leitzinger, M., Brandt, P. N., Hanslmeier, A., Pötzi, W., & Hirzberger, J., “Dynamics of solar mesogranulation”, 2005A&A...444..245L ADS
- Hirzberger, J., Stangl, S., Gersin, K., et al., “The structure of a penumbral connection between solar pores”, 2005A&A...442.1079H ADS
- Hirzberger, J. & Wiehr, E., “Solar limb faculae”, 2005A&A...438.1059H ADS
- Stangl, S. & Hirzberger, J., “On small scale magnetic structures in the solar photosphere”, 2005A&A...432..319S ADS
- Leitzinger, M., Brandt, P. N., Hanslmeier, A., Pötzi, W., & Hirzberger, J. K., “Dynamics of Solar Mesogranulation”, 2005HvaOB...29...49L ADS
- Stangl, S. & Hirzberger, J., “Properties of a Small Active Region in the Solar Photosphere”, 2005ASL...320..251S ADS
- Wiehr, E., Bovelet, B., & Hirzberger, J., “Brightness and size of small-scale solar magnetic flux concentrations”, 2004A&A...422L..63W ADS
- Al, N., Bendlin, C., Hirzberger, J., Kneer, F., & Trujillo Bueno, J., “Dynamics of an enhanced network region observed in H α ”, 2004A&A...418.1131A ADS
- Al, N., Kneer, F., & Hirzberger, J., “Dynamics of Solar Chromospheric Finestruures in H-alpha observed with High Spatial Resolution”, 2003ANS...324..111A ADS
- Hirzberger, J., “Imaging spectroscopy of solar pores”, 2003A&A...405..331H ADS
- Al, N., Hirzberger, J., & Kneer, F., “Two-dimensional speckle spectroscopy of H α features”, 2003AN...324..364A ADS
- Hirzberger, J., “Granulation and waves”, 2003AN...324..344H ADS
- Kneer, F., Al, N., Hirzberger, J., Nicklas, H., & Puschmann, K. G., “A Fabry-Perot spectrometer for high-resolution observation of the Sun”, 2003AN...324..302K ADS
- Wunnenberg, M., Kneer, F., & Hirzberger, J., “Evidence for short-period acoustic waves in the solar atmosphere”, 2002A&A...395L..51W ADS
- Hirzberger, J., “On the brightness and velocity structure of solar granulation”, 2002A&A...392.1105H ADS
- Hirzberger, J., Bonet, J. A., Sobotka, M., Vázquez, M., & Hanslmeier, A., “Fine structure and dynamics in a light bridge inside a solar pore”, 2002A&A...383..275H ADS

Hirzberger, J. & Kneer, F., “2D-spectroscopy of the Evershed flow in sunspots”, 2001A&A...378.1078H [ADS](#)

Hirzberger, J., Hanslmeier, A., Bonet, J. A., & Vázquez, M., “High Resolution Observations of a Photospheric Light Bridge”, 2001ASSL...259..271H [ADS](#)

Hirzberger, J., Koschinsky, M., Kneer, F., & Ritter, C., “High resolution 2D-spectroscopy of granular dynamics”, 2001A&A...367.1011H [ADS](#)

Kneer, F. & Hirzberger, J., “A Fabry-Perot Spectrometer for High-Resolution Observation of the Sun”, 2001AGM...18S1005K [ADS](#)

Koschinsky, M., Kneer, F., & Hirzberger, J., “Speckle spectro-polarimetry of solar magnetic structures”, 2001A&A...365..588K [ADS](#)

Hirzberger, J. & Kneer, F., “High Resolution 2D-Spectroscopy of the Sun”, 2000HvaOB...24...89H [ADS](#)

Hirzberger, J., Bonet, J. A., Vázquez, M., & Hanslmeier, A., “Time Series of Solar Granulation Images. III. Dynamics of Exploding Granules and Related Phenomena”, 1999ApJ...527..405H [ADS](#)

Hirzberger, J., Bonet, J. A., Vázquez, M., & Hanslmeier, A., “Time Series of Solar Granulation Images. II. Evolution of Individual Granules”, 1999ApJ...515..441H [ADS](#)

Sobotka, M., Vázquez, M., Bonet, J. A., Hanslmeier, A., & Hirzberger, J., “Temporal Evolution of Fine Structures in and around Solar Pores”, 1999ApJ...511..436S [ADS](#)

Hirzberger, J., Hanslmeier, A., Bonet, J., & Vázquez, M., “Time Evolution of Solar Granulation”, 1999ASPC...183..507H [ADS](#)

Hirzberger, J., Bonet, J. A., Vázquez, M., Hanslmeier, A., & Sobotka, M., “Granulation in active regions as compared to quiet regions”, 1999AGAb...15...88H [ADS](#)

Hirzberger, J.: 1998, “Analyse von Zeitserien räumlich hochaufgelöster Aufnahmen der Sonnengranulation Analyse von Zeitserien räumlich hochaufgelöster Aufnahmen der Sonnengranulation Analysis of time series of spatially high-resolution images of solar granulation:”, Ph.D. thesis, Karl Franzens University of Graz, Austria 1998PhDT.....409H [ADS](#)

Hirzberger, J., Vázquez, M., Bonet, J. A., Hanslmeier, A., & Sobotka, M., “Time Series of Solar Granulation Images. I. Differences between Small and Large Granules in Quiet Regions”, 1997ApJ...480..406H [ADS](#)

Hirzberger, J., Bonet, J. A., Hanslmeier, A., Vázquez, M., & Sobotka, M., “Time evolution of solar granulation phenomena.”, 1996AGAb...12..160H [ADS](#)

Hirzberger, J., Hanslmeier, A., Bonet, J. A., & Vázquez, M., “Area and intensity distribution in solar granulation”, 1995IAUS...176P.114H [ADS](#)

Hirzberger, J. & Hanslmeier, A., “Solar granulation models - comparison with observations.”, 1994AGAb...10..115H [ADS](#)