

- Chiavassa, A., Kudritzki, R., Davies, B., Freytag, B., & de Mink, S. E., “Probing red supergiant dynamics through photo-center displacements measured by *Gaia*”, 2022A&A...661L...1C ADS
- Höfner, S. & Freytag, B., “Explaining the winds of AGB stars: Recent progress”, 2022arXiv220409728H ADS
- Chiavassa, A., Kravchenko, K., Montargès, M., et al., “The extended atmosphere and circumstellar environment of the cool evolved star *VX Sagittarii* as seen by *MATISSE*”, 2022A&A...658A.185C ADS
- Kravchenko, K., Jorissen, A., Van Eck, S., et al., “Atmosphere of *Betelgeuse* before and during the Great Dimming event revealed by tomography”, 2021A&A...650L...17K ADS
- Cunningham, T., Tremblay, P.-E., Bauer, E. B., et al., “Horizontal spreading of planetary debris accreted by white dwarfs”, 2021MNRAS.503.1646C ADS
- Dravins, D., Ludwig, H.-G., & Freytag, B., “Spatially resolved spectroscopy across stellar surfaces. V. Observational prospects: toward Earth-like exoplanet detection”, 2021A&A...649A..17D ADS
- Dravins, D., Ludwig, H.-G., & Freytag, B., “Spatially resolved spectroscopy across stellar surfaces. IV. F, G, and K-stars: Synthetic 3D spectra at hyper-high resolution”, 2021A&A...649A..16D ADS
- Wittkowski, M., Chiavassa, A., Baron, F., et al., “Investigating mass loss from RSG and AGB stars using the new *VLT-MATISSE* imaging instrument”, 2021csss.confE.310W ADS
- Cukanovaite, E., Tremblay, P.-E., Bergeron, P., et al., “3D spectroscopic analysis of helium-line white dwarfs”, 2021MNRAS.501.5274C ADS
- Kravchenko, K., Jorissen, A., van Eck, S., et al., “*VizieR* Online Data Catalog: *HERMES* spectra of *Betelgeuse* (Kravchenko+, 2021)”, 2021yCat...36509017K ADS
- Kravchenko, K., Wittkowski, M., Jorissen, A., et al., “Tomography of cool giant and supergiant star atmospheres. III. Validation of the method on *VLT/AMBER* observations of the *Mira* star *S Ori*”, 2020A&A...642A.235K ADS
- Chiavassa, A., Kravchenko, K., Millour, F., et al., “Optical interferometry and *Gaia* measurement uncertainties reveal the physics of asymptotic giant branch stars”, 2020A&A...640A..23C ADS
- Dupree, A., Chiavassa, A., Freytag, B., et al.: 2020, *Focus on Betelgeuse*, HST Proposal. Cycle 28, ID. #16216 2020hst...prop16216D ADS
- Climent, J. B., Wittkowski, M., Chiavassa, A., et al., “*VLT-PIONIER* imaging of the red supergiant *V602 Carinae*”, 2020A&A...635A.160C ADS
- Chiavassa, A., Freytag, B., & Schultheis, M., “The atmospheric dynamics of AGB stars revealed by *Gaia* through numerical simulations”, 2019sf2a.conf...137C ADS
- Wittkowski, M., Bladh, S., Chiavassa, A., et al., “Precision Monitoring of Cool Evolved Stars: Constraining Effects of Convection and Pulsation”, 2019Msngr.178...34W ADS
- Wolter, U., Engels, D., Aringer, B., & Freytag, B., “*TIGvival*: High-resolution spectroscopic monitoring of LPV stars”, 2019IAUS...343..548W ADS
- Kravchenko, K., Chiavassa, A., Van Eck, S., et al., “Tomography of the red supergiant star μ Cep”, 2019IAUS...343..441K ADS
- Chiavassa, A., Freytag, B., & Schultheis, M., “Using *Gaia* to measure the atmospheric dynamics in AGB stars”, 2019IAUS...343..373C ADS
- Liljegren, S., Höfner, S., Freytag, B., & Bladh, S., “Lumpy stars and bumpy winds”, 2019IAUS...343..134L ADS
- Paladini, C., Baron, F., Jorissen, A., et al., “Constraining convection across the AGB with high-angular-resolution observations”, 2019IAUS...343...27P ADS
- Freytag, B., Höfner, S., & Liljegren, S., “3D modelling of AGB stars with *CO5BOLD*”, 2019IAUS...343...9F ADS
- Kravchenko, K., Chiavassa, A., Van Eck, S., et al., “Tomography of cool giant and supergiant star atmospheres. II. Signature of convection in the atmosphere of the red supergiant star μ Cep”, 2019A&A...632A..28K ADS
- Cukanovaite, E., Tremblay, P. E., Freytag, B., et al., “Calibration of the mixing-length theory for structures of helium-dominated atmosphere white dwarfs”, 2019MNRAS.490.1010C ADS
- Cunningham, T., Tremblay, P.-E., Freytag, B., Ludwig, H.-G., & Koester, D., “Convective overshoot and macroscopic diffusion in pure-hydrogen-atmosphere white dwarfs”, 2019MNRAS.488.2503C ADS
- Dupree, A., Chiavassa, A., Freytag, B., et al.: 2019, *Focus on Betelgeuse*, HST Proposal. Cycle 27, ID. #15873 2019hst...prop15873D ADS
- Höfner, S. & Freytag, B., “Exploring the origin of clumpy dust clouds around cool giants. A global 3D RHD model of a dust-forming *M*-type AGB star”, 2019A&A...623A.158H ADS
- Cukanovaite, E., Tremblay, P. E., Freytag, B., Ludwig, H. G., & Bergeron, P., “Pure-helium 3D model atmospheres of white dwarfs”, 2018MNRAS.481.1522C ADS
- Liljegren, S., Höfner, S., Freytag, B., & Bladh, S., “Atmospheres and wind properties of non-spherical AGB stars”, 2018A&A...619A..47L ADS
- Chiavassa, A., Freytag, B., & Schultheis, M., “Heading *Gaia* to measure atmospheric dynamics in AGB stars”, 2018A&A...617L...1C ADS
- Vasilyev, V., Ludwig, H.-G., Freytag, B., Lemasle, B., & Marconi, M., “Spectroscopic Properties of a Two-Dimensional Cepheid Model”, 2018pas6.conf...222V ADS
- Paladini, C., Baron, F., Jorissen, A., et al., “Constraining Convection in Evolved Stars with the *VLT*”, 2018Msngr.172...24P ADS
- Salhah, R. G., Steiner, O., Berdyugina, S. V., et al., “Simulation of the small-scale magnetism in main-sequence stellar atmospheres”, 2018A&A...614A..78S ADS
- Kravchenko, K., Chiavassa, A., Van Eck, S., et al., “Tomography of the Red Supergiant Star *MU Cep*”, 2018iss...confE..20K ADS
- Bonifacio, P., Caffau, E., Ludwig, H. G., et al., “Using the *CIFIST* grid of *CO5BOLD* 3D model atmospheres to study the effects of stellar granulation on photometric colours. I. Grids of 3D corrections in the *UBVRI*, *2MASS*, *HIPPARCOS*, *Gaia*, and *SDSS* systems”, 2018A&A...611A..68B ADS
- Vasilyev, V., Ludwig, H. G., Freytag, B., Lemasle, B., & Marconi, M., “Spectroscopic properties of a two-dimensional time-dependent Cepheid model. II. Determination of stellar parameters and abundances”, 2018A&A...611A..19V ADS
- Kravchenko, K., Van Eck, S., Chiavassa, A., et al., “Tomography of cool giant and supergiant star atmospheres. I. Validation of the method”, 2018A&A...610A..29K ADS
- Bonifacio, P., Caffau, E., Ludwig, H. G., et al., “*VizieR* Online Data Catalog: 3D correction in 5 photometric systems (Bonifacio+, 2018)”, 2018yCat...36110068B ADS
- Paladini, C., Baron, F., Jorissen, A., et al., “Large granulation cells on the surface of the giant star π Gruis”, 2018Natur.553.310P ADS
- Vasilyev, V., Ludwig, H. G., Freytag, B., Lemasle, B., & Marconi, M., “Spectroscopic properties of a two-dimensional time-dependent Cepheid model. I. Description and validation of the model”, 2017A&A...606A.140V ADS
- Freytag, B., Liljegren, S., & Höfner, S., “Global 3D radiation-hydrodynamics models of AGB stars. Effects of convection and radial pulsations on atmospheric structures”, 2017A&A...600A.137F ADS
- Tremblay, P. E., Ludwig, H. G., Freytag, B., Koester, D., & Fontaine, G., “Convective overshoot and metal accretion onto white dwarfs.”, 2017MmSAI...88..104T ADS
- Bonifacio, P., Caffau, E., Ludwig, H. G., et al., “Using *CO5BOLD* models to predict the effects of granulation on colours.”, 2017MmSAI...88...90B ADS
- Gallagher, A. J., Steffen, M., Caffau, E., et al., “Enhanced methods for computing spectra from *CO5BOLD* models using *Linfor3D*. Molecular bands in metal-poor stars”, 2017MmSAI...88...82G ADS
- Freytag, B., “Boundary conditions in *CO5BOLD*”, 2017MmSAI...88...12F ADS
- Calvo, F., Steiner, O., & Freytag, B., “Non-magnetic photospheric bright points in 3D simulations of the solar atmosphere”, 2016A&A...596A..43C ADS
- Battino, U., Pignatari, M., Ritter, C., et al., “Application of a Theory and Simulation-based Convective Boundary Mixing Model for AGB Star Evolution and Nucleosynthesis”, 2016ApJ...827...30B ADS
- Wittkowski, M., Chiavassa, A., Freytag, B., et al., “Near-infrared spectro-interferometry of *Mira* variables and comparisons to 1D dynamic model atmospheres and 3D convection simulations”, 2016A&A...587A..12W ADS
- Chiavassa, A. & Freytag, B., “Pathways for Observing Stellar Surfaces Using 3D Hydrodynamical Simulations of Evolved Stars”, 2015EAS...71..237C ADS
- Tremblay, P. E., Fontaine, G., Freytag, B., et al., “On the Evolution of Magnetic White Dwarfs”, 2015ApJ...812...19T ADS
- Tremblay, P. E., Gianninas, A., Kilic, M., et al., “3D Model Atmospheres for Extremely Low-mass White Dwarfs”, 2015ApJ...809..148T ADS
- Arroyo-Torres, B., Wittkowski, M., Marcaide, J. M., et al., “*VLT/AMBER* Studies of the Atmospheric Structure and Fundamental Parameters of Red Giant and Supergiant Stars”, 2015ASPC...497...91A ADS
- Freytag, B., “Studying the Generation of Shock Waves in AGB Stars with 3-Dimensional Radiation-Hydrodynamics Simulations”, 2015ASPC...497...23F ADS
- Chiavassa, A. & Freytag, B., “3D Hydrodynamical Simulations of Evolved Stars and Observations of Stellar Surfaces”, 2015ASPC...497...11C ADS
- Tremblay, P. E., Ludwig, H. G., Freytag, B., et al., “Calibration of the Mixing-Length Free Parameter for White Dwarf Structures”, 2015ASPC...493...89T ADS
- Arroyo-Torres, B., Wittkowski, M., Chiavassa, A., et al., “What causes the large extensions of red supergiant atmospheres?. Comparisons of interferometric observations with 1D hydrostatic, 3D convection, and 1D pulsating model atmospheres”, 2015A&A...575A..50A ADS

- Tremblay, P. E., Ludwig, H. G., Freytag, B., et al., “Calibration of the Mixing-length Theory for Convective White Dwarf Envelopes”, 2015ApJ...799..142T ADS
- Witkowski, M., Arroyo-Torres, B., Marcaide, J. M., et al., “On the atmospheric structure and fundamental parameters of red supergiants”, 2015IAUS...307..280W ADS
- Steiner, O., Salhab, R., Freytag, B., et al., “Properties of small-scale magnetism of stellar atmospheres”, 2014PASJ...66S...5S ADS
- Tremblay, P. E., Leggett, S. K., Lodieu, N., et al., “White Dwarfs in the UKIRT Infrared Deep Sky Survey Data Release 9”, 2014ApJ...788..103T ADS
- Tremblay, P. E., Leggett, S. K., Lodieu, N., et al., “White Dwarfs In The UKIRT Infrared Deep Sky Survey Data Release 9”, 2014arXiv1405.0266T ADS
- Ludwig, H. G., Steffen, M., Bonifacio, P., et al., “3D modeling of stellar atmospheres and the impact on the understanding of the reliability of elemental abundances in stars as tracers of galactic chemical evolution”, 2014IAUS...298..343L ADS
- Allard, F., Homeier, D., & Freytag, B., “Synthetic spectral libraries”, 2014ASInC...11...33A ADS
- Tremblay, P.-E., Ludwig, H., Steffen, M., & Freytag, B., “3D Model Atmospheres of White Dwarfs”, 2014AAS...22331507T ADS
- Billier, B. A., Crossfield, I. J. M., Mancini, L., et al., “Weather on the Nearest Brown Dwarfs: Resolved Simultaneous Multi-wavelength Variability Monitoring of WISE J104915.57-531906.1AB”, 2013ApJ...778L..10B ADS
- Tremblay, P. E., Ludwig, H. G., Steffen, M., & Freytag, B., “Spectroscopic analysis of DA white dwarfs with 3D model atmospheres”, 2013A&A...559A.104T ADS
- Billier, B., Crossfield, I., Deacon, N., et al.: 2013, A Search for Variability in a Young Planet, Spitzer Proposal ID 10061 2013sptz.prop10061B ADS
- Tremblay, P. E., Ludwig, H. G., Freytag, B., Steffen, M., & Caffau, E., “Granulation properties of giants, dwarfs, and white dwarfs from the CIFIST 3D model atmosphere grid”, 2013A&A...557A...7T ADS
- Chiavassa, A., Freytag, B., & Plez, B., “3D hydrodynamical simulations to interpret observations of stellar surfaces of red supergiant stars”, 2013EAS...60..145C ADS
- Freytag, B. & Chiavassa, A., “Global radiation-hydrodynamics simulations of red supergiant stars”, 2013EAS...60..137F ADS
- Tremblay, P. E., Ludwig, H. G., Steffen, M., & Freytag, B., “Pure-hydrogen 3D model atmospheres of cool white dwarfs”, 2013A&A...552A..13T ADS
- Allende Prieto, C., Koesterke, L., Ludwig, H. G., Freytag, B., & Caffau, E., “Convective line shifts for the Gaia RVS from the CIFIST 3D model atmosphere grid”, 2013A&A...550A.103A ADS
- Freytag, B., Allard, F., & Homeier, D., “Radiation hydrodynamics simulations of brown dwarf atmospheres with CO5BOLD”, 2013MmSAI...84.1070F ADS
- Allard, F., Homeier, D., & Freytag, B., “Atmospheres from very low-mass stars to extrasolar planets”, 2013MmSAI...84.1053A ADS
- Allard, F., Homeier, D., Freytag, B., Schaffenberger, W., & Rajpurohit, A. S., “Progress in modeling very low mass stars, brown dwarfs, and planetary mass objects”, 2013MSAIS...24..128A ADS
- Prakapavičius, D., Steffen, M., Kučinskas, A., et al., “Oxygen spectral line synthesis: 3D non-LTE with CO⁵BOLD hydrodynamical model atmospheres”, 2013MSAIS...24..111P ADS
- Steiner, O., Rajaguru, S. P., Vigeesh, G., et al., “First steps with CO5BOLD using HLLMHD and PP reconstruction”, 2013MSAIS...24..100S ADS
- Tremblay, P. E., Ludwig, H. G., Freytag, B., & Steffen, M., “Granulation in DA white dwarfs from CO5BOLD 3D model atmospheres”, 2013MSAIS...24...61T ADS
- Freytag, B., “Advances in the hydrodynamics solver of CO5BOLD”, 2013MSAIS...24...26F ADS
- Tremblay, P. E., Ludwig, H. G., Steffen, M., & Freytag, B., “3D Model Atmospheres of DA White Dwarfs”, 2013ASPC...469..155T ADS
- Allende Prieto, C., Koesterke, L. L. H. G., Freytag, B., & Caffau, E., “VizieR Online Data Catalog: Model 1D (LHD) and 3D (CO5BOLD) spectra (Allende Prieto+, 2013)”, 2012yCat...35500103A ADS
- Allard, F., Homeier, D., Freytag, B., & Sharp, C. M., “Atmospheres From Very Low-Mass Stars to Extrasolar Planets”, 2012EAS...57...3A ADS
- Allard, F., Homeier, D., & Freytag, B., “Models of very-low-mass stars, brown dwarfs and exoplanets”, 2012RSPTA.370.2765A ADS
- Berger, J. P., Malbet, F., Baron, F., et al., “Imaging the heart of astrophysical objects with optical long-baseline interferometry”, 2012A&ARv...20...53B ADS
- Allard, F., Homeier, D., & Freytag, B., “Stellar to Substellar Model Atmospheres”, 2012IAUS...282..235A ADS
- Beeck, B., Collet, R., Steffen, M., et al., “Simulations of the solar near-surface layers with the CO5BOLD, MURaM, and Stagger codes”, 2012A&A...539A.121B ADS
- Freytag, B., Steffen, M., Ludwig, H. G., et al., “Simulations of stellar convection with CO5BOLD”, 2012JCoPh.231..919F ADS
- Freytag, B., Allard, F., Homeier, D., Ludwig, H., & Steffen, M., “Radiation Hydrodynamics Simulations of Dust Clouds in the Atmospheres of Substellar Objects”, 2011ASPC...450..125F ADS
- Freytag, B., Allard, F., Ludwig, H. G., Homeier, D., & Steffen, M., “Radiation-Hydrodynamics Simulations of Cool Stellar and Substellar Atmospheres”, 2011ASPC...448..855F ADS
- Allard, F., Homeier, D., & Freytag, B., “Model Atmospheres From Very Low Mass Stars to Brown Dwarfs”, 2011ASPC...448..91A ADS
- Chiavassa, A., Freytag, B., Masseron, T., & Plez, B., “Radiative hydrodynamics simulations of red supergiant stars. IV. Gray versus non-gray opacities”, 2011A&A...535A..22C ADS
- Chiavassa, A., Pasquato, E., Jorissen, A., et al., “Photocentric and Photometric Variability of Red Supergiant Stars”, 2011ASPC...445..169C ADS
- Tremblay, P. E., Ludwig, H. G., Steffen, M., Bergeron, P., & Freytag, B., “Solution to the problem of the surface gravity distribution of cool DA white dwarfs from improved 3D model atmospheres”, 2011A&A...531L..19T ADS
- Chiavassa, A., Pasquato, E., Jorissen, A., et al., “Radiative hydrodynamics simulations of red supergiant stars. III. Spectro-photocentric variability, photometric variability, and consequences on Gaia measurements”, 2011A&A...528A.120C ADS
- Caffau, E., Ludwig, H. G., Steffen, M., Freytag, B., & Bonifacio, P., “Solar Chemical Abundances Determined with a CO5BOLD 3D Model Atmosphere”, 2011SoPh...268..255C ADS
- Chiavassa, A., Pasquato, E., Jorissen, A., et al., “Photocentric variability of red supergiant stars and consequences on Gaia measurements”, 2010sf2a.conf..339C ADS
- Freytag, B., Steffen, M., Wedemeyer-Böhm, S., et al.: 2010, CO5BOLD: Conservative Code for the Computation of Compressible Convection in a Box of L Dimensions with l=2,3, Astrophysics Source Code Library, record ascl:1011.014 2010ascl.soft11014F ADS
- Allard, F. & Freytag, B., “Brown Dwarf Model Atmospheres Based on Multi-Dimensional Radiation Hydrodynamics”, 2010HiA...15..756A ADS
- Sbordone, L., Bonifacio, P., Caffau, E., et al., “The metal-poor end of the Spite plateau. I. Stellar parameters, metallicities, and lithium abundances”, 2010A&A...522A..26S ADS
- Viallet, M., Baraffe, I., Mulet-Marquis, C., et al., “Implicit Hydrodynamic Simulations of Stellar Interiors”, 2010ASPC...429..167V ADS
- González Hernández, J. I., Bonifacio, P., Ludwig, H. G., et al., “Galactic evolution of oxygen. OH lines in 3D hydrodynamical model atmospheres”, 2010A&A...519A..46G ADS
- Sbordone, L., Bonifacio, P., Caffau, E., et al., “VizieR Online Data Catalog: Fe Abundances in metal-poor stars (Sbordone+ 2010)”, 2010yCat...35220026S ADS
- Chiavassa, A., Haubois, X., Young, J. S., et al., “Radiative hydrodynamics simulations of red supergiant stars. II. Simulations of convection on Betelgeuse match interferometric observations”, 2010A&A...515A..12C ADS
- Caffau, E., Ludwig, H. G., Bonifacio, P., et al., “The solar photospheric abundance of carbon. Analysis of atomic carbon lines with the CO5BOLD solar model”, 2010A&A...514A..92C ADS
- Sbordone, L., Bonifacio, P., Caffau, E., et al., “The metal-poor end of the Spite plateau: gravity sensitivity of the H α wings fitting”, 2010IAUS...268..355S ADS
- Freytag, B., Allard, F., Ludwig, H. G., Homeier, D., & Steffen, M., “The role of convection, overshoot, and gravity waves for the transport of dust in M dwarf and brown dwarf atmospheres”, 2010A&A...513A..19F ADS
- Ludwig, H.-G., Caffau, E., Steffen, M., et al., “Solar abundances and 3D model atmospheres”, 2010IAUS...265..201L ADS
- Sbordone, L., Bonifacio, P., Caffau, E., et al., “The metal-poor end of the Spite plateau”, 2010IAUS...265...75S ADS
- Chiavassa, A., Lacour, S., Millour, F., et al., “VLT/AMBER spectro-interferometric imaging of VX Sagittarii’s inhomogeneous outer atmosphere”, 2010A&A...511A..51C ADS
- Chiavassa, A., Plez, B., Josselin, E., & Freytag, B., “Radiative hydrodynamics simulations of red supergiant stars. I. Interpretation of interferometric observations”, 2009A&A...506.1351C ADS
- Freytag, B., Allard, F., Ludwig, H.-G., et al., “Convective mixing and dust clouds in the atmospheres of brown dwarfs”, 2009AIPC.1094..489F ADS
- Ludwig, H. G., Caffau, E., Steffen, M., et al., “The CIFIST 3D model atmosphere grid”, 2009MmSAI...80..711L ADS
- Freytag, B., Allard, F., Ludwig, H. G., Homeier, D., & Steffen, M., “Simulations of dust clouds in the atmospheres of substellar objects. Theory toddlers after observations”, 2009MmSAI...80..670F ADS
- Freytag, B., Allard, F., Ludwig, H. G., Homeier, D., & Steffen, M., “Models of surface convection and dust clouds in brown dwarfs”, 2008PhSt...133a4005F ADS
- Freytag, B., Allard, F., Ludwig, H. G., et al., “The models comprise the upper part of the convection zone and the atmosphere with the dust cloud layers. We find that direct convective overshoot does not play a major role. Instead, the mixing in the clouds is controlled by gravity waves”, 2008sf2a.conf..469F ADS

- Freytag, B., Steffen, M., Ludwig, H.-G., & Wedemeyer-Böhm, S.: 2008c, *Radiation hydrodynamics simulations of stellar surface convection*, Astrophysics Software Database, CAU Kiel, Germany (<http://www1.astrophysik.uni-kiel.de/asd/>). 2008asd..soft...36F ADS
- Caffau, E., Ludwig, H. G., Steffen, M., et al., “The photospheric solar oxygen project. I. Abundance analysis of atomic lines and influence of atmospheric models”, 2008A&A...488.1031C ADS
- Mucciarelli, A., Caffau, E., Freytag, B., Ludwig, H. G., & Bonifacio, P., “The solar photospheric abundance of europium. Results from COSBOLD 3D hydrodynamical model atmospheres”, 2008A&A...484.841M ADS
- Freytag, B. & Höfner, S., “Three-dimensional simulations of the atmosphere of an AGB star”, 2008A&A...483.571F ADS
- Chiavassa, A., Plez, B., Josselin, E., & Freytag, B., “Atmospheric dynamics of red supergiant stars and applications to Interferometry”, 2008arXiv0802.1403C ADS
- Freytag, B., “Numerical Simulations of Stellar Surface Convection and Related Phenomena”, 2008EAS...28...9F ADS
- Steffen, M. & Freytag, B., “Rotating ‘star-in-a-box’ experiments”, 2007AN...328.1054S ADS
- Herwig, F., Freytag, B., Fuchs, T., et al., “Convective and Non-Convective Mixing in AGB Stars”, 2007ASPC...378...43H ADS
- Wedemeyer-Böhm, S., Ludwig, H. G., Steffen, M., Leenaarts, J., & Freytag, B., “Inter-network regions of the Sun at millimetre wavelengths”, 2007A&A...471..977W ADS
- Freytag, B. & Ludwig, H.-G., “Formation of convective structures in stellar atmospheres”, 2007sf2a.conf..481F ADS
- Chiavassa, A., Plez, B., Josselin, E., & Freytag, B., “Atmospheric dynamics of red supergiant stars and applications to Interferometry”, 2007sf2a.conf..447C ADS
- Kochukhov, O., Freytag, B., Piskunov, N., & Steffen, M., “3-D hydrodynamic simulations of convection in A stars”, 2007IAUS...239...68K ADS
- Steiner, O., Vigeesh, G., Krieger, L., et al., “First local helioseismic experiments with CO²BOLD”, 2007AN...328..323S ADS
- Schaffenberger, W., Wedemeyer-Böhm, S., Steiner, O., & Freytag, B., “Holistic MHD-Simulation from the Convection Zone to the Chromosphere”, 2006ASPC...354..345S ADS
- Wedemeyer-Böhm, S., Kamp, I., Freytag, B., Bruls, J., & Steffen, M., “A First Three-Dimensional Model for the Carbon Monoxide Concentration in the Solar Atmosphere”, 2006ASPC...354..301W ADS
- Hueckstaedt, R. M., Freytag, B., Herwig, F., & Timmes, F., “Multi-dimensional Simulations of Helium Shell Flash Convection”, 2006AAS...20910107H ADS
- Chiavassa, A., Plez, B., Josselin, E., & Freytag, B., “Line formation in 3D radiation hydrodynamics simulations of red supergiants”, 2006sf2a.conf..455C ADS
- Herwig, F., Freytag, B., Hueckstaedt, R. M., & Timmes, F. X., “Hydrodynamic Simulations of He Shell Flash Convection”, 2006ApJ...642.1057H ADS
- Herwig, F., Freytag, B., & Werner, K., “The Evolution of Central Stars of Planetary Nebulae”, 2006IAUS...234..103H ADS
- Freytag, B., “Convection in giant stars”, 2006EAS...21..325F ADS
- Chiavassa, A., Plez, B., Josselin, E., & Freytag, B., “Radiative transfer in snapshots of 3D radiative hydrodynamic models of red supergiants”, 2006EAS...18..177C ADS
- Schaffenberger, W., Wedemeyer-Böhm, S., Steiner, O., & Freytag, B., “Magnetohydrodynamic Simulation from the Convection Zone to the Chromosphere”, 2005ESASP.596E..65S ADS
- Wedemeyer-Böhm, S., Schaffenberger, W., Steiner, O., et al., “Simulations of Magnetohydrodynamics and CO Formation from the Convection Zone to the Chromosphere”, 2005ESASP.596E..16W ADS
- Wedemeyer-Böhm, S., Kamp, I., Bruls, J., & Freytag, B., “Carbon monoxide in the solar atmosphere. I. Numerical method and two-dimensional models”, 2005A&A...438.1043W ADS
- Wedemeyer-Böhm, S., Ludwig, H. G., Steffen, M., Freytag, B., & Holweger, H., “The shock-patterned solar chromosphere in the light of ALMA”, 2005ESASP.560.1035W ADS
- Steffen, M., Freytag, B., & Ludwig, H. G., “3D simulation of convection and spectral line formation in A-type stars”, 2005ESASP.560..985S ADS
- Josselin, E., Plez, B., & Freytag, B., “Convection, atmospheres and winds of red supergiant stars”, 2005ESASP.560..689J ADS
- Höfner, S., Gautschy-Loidl, R., Aringer, B., et al., “Dynamic Model Atmospheres of Cool Giants”, 2005hris.conf..269H ADS
- Freytag, B. & Steffen, M., “Numerical simulations of convection in A-stars”, 2004IAUS...224..139F ADS
- Wedemeyer, S., Freytag, B., Steffen, M., Ludwig, H. G., & Holweger, H., “Numerical simulation of the three-dimensional structure and dynamics of the non-magnetic solar chromosphere”, 2004A&A...414.1121W ADS
- Freytag, B., “Hot Spots in Numerical Simulations of Betelgeuse”, 2003csss...12.1024F ADS
- Wedemeyer, S., Freytag, B., Steffen, M., Ludwig, H.-G., & Holweger, H., “Modelling the Chromospheric Background Pattern of the Non-magnetic Sun”, 2003ANS...324R..66W ADS
- Steffen, M., Ludwig, H.-G., & Freytag, B., “3D Simulation of the Solar Granulation: A Comparison of two Different Hydrodynamics Codes”, 2003ANS...324..174S ADS
- Freytag, B. & Höfner, S., “Three-dimensional Model of the Atmosphere of an AGB Star”, 2003ANS...324..173F ADS
- Freytag, B., “Betelgeuse - Improved Numerical Simulations of an Entire Supergiant”, 2003ANS...324..67F ADS
- Freytag, B., “Alpha Ori imaging science”, 2003SPIE.4838..348F ADS
- Freytag, B. & Finnsson, S., “Typical Scales of Structures in Numerical Models of Betelgeuse”, 2003IAUS...210P.C12F ADS
- Dorch, S. B. F. & Freytag, B., “Does Betelgeuse Have a Magnetic Field?”, 2003IAUS...210P.A12D ADS
- Freytag, B. & Mizuno-Wiedner, M., “Modelling the Entire Atmosphere of Betelgeuse with 3D Simulations”, 2003IAUS...210P..C4F ADS
- Wedemeyer, S., Freytag, B., Steffen, M., Ludwig, H. G., & Holweger, H., “Acoustic Waves in the Solar Chromosphere - Numerical Simulations with COBOLD”, 2003IAUS...210P..C1W ADS
- Wedemeyer, S., Freytag, B., Steffen, M., Ludwig, H. G., & Holweger, H., “3-D hydrodynamic simulations of the solar chromosphere”, 2003AN...324..410W ADS
- Freytag, B., Steffen, M., & Dorch, B., “Spots on the surface of Betelgeuse – Results from new 3D stellar convection models”, 2002AN...323..213F ADS
- Freytag, B., “Hydrodynamical models of mixing beyond a convection zone”, 2002HiA...12..298F ADS
- Freytag, B., “Betelgeuse - improved numerical simulations of an entire supergiant”, 2002AGAb...19Q..90F ADS
- Freytag, B., “Stellar Surface Convection from White Dwarfs to Red Supergiants (CD-ROM Directory: contribs/freytag)”, 2001ASPC...223..785F ADS
- Freytag, B., “Betelgeuse - Numerical Simulations of an Entire Supergiant”, 2001AGM...18..P18F ADS
- Wedemeyer, S., Freytag, B., Holweger, H., Ludwig, H.-G., & Steffen, M., “Acoustic Energy Generated by Convection: 3-D Numerical Simulations for the Sun”, 2001AGM...18..P01W ADS
- Freytag, B., “Hydrodynamical Models of Mixing beyond a Convection Zone”, 2000IAUJD...5E..13F ADS
- Freytag, B., “Betelgeuse – Towards Numerical Simulations of an Entire Supergiant”, 2000AGM...17..P20F ADS
- Wedemeyer, S., Freytag, B., Steffen, M., & Holweger, H., “Radiation Hydrodynamics Simulations of the Solar Chromosphere”, 2000AGM...17..P01W ADS
- Straus, T., Steffen, M., Severino, G., & Freytag, B., “The Solar p-Mode Background: Observations and Hydrodynamical Models”, 1999ESASP.448..203S ADS
- Ludwig, H.-G., Freytag, B., & Steffen, M., “A calibration of the mixing-length for solar-type stars based on hydrodynamical simulations. I. Methodical aspects and results for solar metallicity”, 1999A&A...346..111L ADS
- Freytag, B. & Salaris, M., “Stellar Envelope Convection Calibrated by Radiation Hydrodynamics Simulations: Influence on Globular Cluster Isochrones”, 1999ApJ...513L..49F ADS
- Freytag, B., Ludwig, H. G., & Steffen, M., “A Calibration of the Mixing-Length for Solar-Type Stars Based on Hydrodynamical Models of Stellar Surface Convection”, 1999ASPC...173..225F ADS
- Freytag, B., Salaris, M., & Ludwig, H. G., “Treatment of the Supera-diabatic Convection in Low-Mass Metal-Poor Stars from Realistic Hydrodynamics Simulations: Application to Globular Clusters Isochrones”, 1999ASPC...173..201F ADS
- Freytag, B., “Stellar Surface Convection in Stars of Various Radii”, 1999AGAb...15..99F ADS
- Blöcker, T., Holweger, H., Freytag, B., et al., “Lithium Depletion in the Sun: A Study of Mixing Based on Hydrodynamical Simulations”, 1998SSRv...85..105B ADS
- Blöcker, T., Holweger, H., Freytag, B., et al., “Lithium Depletion in the Sun: A Study of Mixing Based on Hydrodynamical Simulations”, 1998scc...conf..105B ADS
- Ludwig, H. G., Freytag, B., & Steffen, M., “An improved calibration of the mixing-length based on simulations of solar-type convection”, 1998IAUS...185..115L ADS
- Freytag, B., “Numerical simulations of convection in low-mass metal-poor stars”, 1998AGAb...14..113F ADS
- Ludwig, H. G., Freytag, B., & Steffen, M., “A calibration of mixing length theory based on RHD simulations of solar-type convection”, 1997ASSL...225...59L ADS
- Hempel, M., Holweger, H., Rentzsch-Holm, I., & Freytag, B., “Discovery of a β Pictoris-like circumstellar disk in the Internet.”, 1997AGAb...13..201H ADS

- Freytag, B. & Steffen, M., “Numerical simulations of stellar surface convection.”, 1997AGAb...13...176F [ADS](#)
- Freytag, B., Holweger, H., Steffen, M., & Ludwig, H. G., “On the Scale of Photospheric Convection”, 1997svlt.work...316F [ADS](#)
- Freytag, B., Ludwig, H. G., & Steffen, M., “Hydrodynamical models of stellar convection. The role of overshoot in DA white dwarfs, A-type stars, and the Sun.”, 1996A&A...313...497F [ADS](#)
- Gautschi, A., Ludwig, H. G., & Freytag, B., “Overtures to the pulsational instability of ZZ Ceti variables.”, 1996A&A...311...493G [ADS](#)
- Freytag, B., “Problems in Modeling Photospheric Convective Overshooting”, 1996ASPC...108...93F [ADS](#)
- Steffen, M. & Freytag, B., “Lyapunov exponents for solar surface convection.”, 1995CSF...5...1965S [ADS](#)
- Steffen, M., Ludwig, H. G., & Freytag, B., “Synthetic spectra computed from hydrodynamical model atmospheres of DA white dwarfs.”, 1995A&A...300...473S [ADS](#)
- Freytag, B., Steffen, M., & Ludwig, H.-G., “Numerical Simulations of Convection and Overshoot in the Envelope of DA White Dwarfs”, in D. Koester and K. Werner (Eds.), White Dwarfs, Vol. 443, 88 1995LNP...443...88F [ADS](#)
- Ludwig, H. G., Freytag, B., Steffen, M., & Wagenhuber, J., “The Mixing-Length Parameter for Solar-Type Convection Zones Inferred from Hydrodynamical Models of the Surface Layers”, 1995LIACo...32...213L [ADS](#)
- Freytag, B. & Steffen, M., “Numerical simulations of surface convection in solar-type stars”, 1995IAUS...176P.111F [ADS](#)
- Steffen, M., Freytag, B., & Holweger, H., “Shocks in the solar photosphere and their spectroscopic signature”, 1994smf...conf...298S [ADS](#)
- Steffen, M. & Freytag, B., “Hydrodynamics of the Solar Photosphere: Model Calculations and Spectroscopic Observations.”, 1991RvMA...4...43S [ADS](#)