

- Rutten, R.J., 2021: “*Compendium solar spectrum formation*”, Lingezicht Astrophysics Reports 2, 1-62 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., Rouppe van der Voort, L.H.M., De Pontieu, B., 2019: “*Solar H α features with hot onsets. IV. Network fibrils*”, *Astron. Astrophys.* 632, A96 1-19 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., 2019: “*Non-Equilibrium Spectrum Formation Affecting Solar Irradiance*”, *Solar Phys.* 294(11), 165 1-26 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R., 2018: “*Non-equilibrium spectrum formation affecting solar irradiance*”, displays of invited review at Focus meeting 9, 30th General Assembly IAU Vienna, 1-21 [pdf](#) [bib](#)
- Rutten, R.J., 2017: “*Solar ALMA predictions: tutorial*” in Vargas Domínguez, S., Kosovichev, A.G., Antolin, P., Harra, L. (eds.), “*Fine structure and dynamics of the solar atmosphere*”, IAU Symposium 327, 1-15 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., 2017: “*Solar H-alpha features with hot onsets. III. Long fibrils in Lyman-alpha and with ALMA*”, *Astron. Astrophys.* 598, A89 1-38 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., Rouppe van der Voort, L.H.M., 2017: “*Solar H α features with hot onsets. II. A contrail fibril*”, *Astron. Astrophys.* 597, A138 1-10 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., 2017: “*The Sun with ALMA: jets and contrails!*”, poster at 72th Nederlandse Astronomenconferentie [pdf](#) [bib](#)
- Rutten, R.J., 2017: “*Temporal chromospheric fine structure*”, displays of talk at Sacramento Peak Farewell Workshop, Sunspot, 1-17 [pdf](#) [bib](#)
- Rutten, R.J., 2016: “*H α features with hot onsets. I. Ellerman bombs*”, *Astron. Astrophys.* 590, A124 1-13 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., Rouppe van der Voort, L.H.M., Vissers, G.J.M., 2015: “*Ellerman Bombs at High Resolution. IV. Visibility in Na I and Mg I*”, *Astrophys. J.* 808, 133 1-7 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., 2015: “*Introduction to Astrophysical Radiative Transfer*”, translated by R.C. Peterson, edited by L.H.M. Rouppe van der Voort, lecture notes Utrecht University 1-140 [pdf](#) [bib](#)
- Rutten, R., 2014: “*H α is easy and fibrils are contrails*”, annotated displays of talk at 14th ESPM, Dublin, 1-27 [pdf](#) [bib](#)
- Rutten, R., 2014: “*H α is easy; fibrils are contrails*”, poster at conference “*Coupling and Dynamics of the Solar Atmosphere*”, Pune [pdf](#) [bib](#)
- Rutten, R.J., Uitenbroek, H., 2012: “*Chromospheric backradiation in ultraviolet continua and H α* ”, *Astron. Astrophys.* 540, A86 1-11 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R., 2012: “*Graphical introduction to chromospheric line formation*”, annotated displays of review at SDO-4/IRIS/Hinode workshop, Monterey, 1-61 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 2011: “*The solar activity sensitivity of Mn I lines*” in Premadi, P.W., et al. (eds.), “*Indonesia Astronomy & Astrophysics*”, Indonesian Astron. Soc., Institut Teknologi Bandung, 3-8 [pdf](#) [bib](#)
- Rutten, R.J., Leenaarts, J., Rouppe van der Voort, L.H.M., de Wijn, A.G., Carlsson, M., Hansteen, V., 2011: “*Quiet-Sun imaging asymmetries in Na I D1 compared with other strong Fraunhofer lines*”, *Astron. Astrophys.* 531, A17 1-16 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Leenaarts, J., Rutten, R.J., Reardon, K., Carlsson, M., Hansteen, V., 2010: “*The Quiet Solar Atmosphere Observed and Simulated in Na I D1*”, *Astrophys. J.* 709, 1362-1373 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Vitas, N., Viticchiè, B., Rutten, R.J., Vögler, A., 2009: “*Explanation of the activity sensitivity of Mn I 5394.7 Å*”, *Astron. Astrophys.* 499, 301-312 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Leenaarts, J., Carlsson, M., Hansteen, V., Rutten, R.J., 2007: “*Non-equilibrium hydrogen ionization in 2D simulations of the solar atmosphere*”, *Astron. Astrophys.* 473, 625-632 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Wiersma, J., Rutten, R.J., Lanz, T., 2003: “*NLTE in a Hot Hydrogen Star: Auer & Mihalas Revisited*” in Hubený, I., Mihalas, D., Werner, K. (eds.), “*Stellar Atmosphere Modeling*”, *Astron. Soc. Pacific Conf. Series* 288, 130-136 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 2003: “*Utrecht Radiative Transfer Courses*” in Hubený, I., Mihalas, D., Werner, K. (eds.), “*Stellar Atmosphere Modeling*”, *Astron. Soc. Pacific Conf. Series* 288, 99 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 2003: “*Epsilon*” in Andreasian, N. (ed.), “*Richard Nelson Thomas: NonEquilibrium Thermodynamical Astrophysicist*”, University of Colorado, Boulder, 78-90 [pdf](#) [bib](#)

- Rutten, R.J., 2003: “*Radiative Transfer in Stellar Atmospheres*”, lecture notes Utrecht University, Utrecht 1-275 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 2003: “*Equations compendium Radiative Transfer in Stellar Atmospheres*”, lecture notes Utrecht University 1-89 [pdf](#) [bib](#)
- Rutten, R.J., 2002: “*Solar Atmosphere Models*”, *J. Astron. Data* 8, 1-32 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 1999: “*Radiative Transfer for Grabs*” in Butler, C.J., Doyle, J.G. (eds.), “Solar and Stellar Activity: Similarities and Differences”, *Astron. Soc. Pacific Conf. Series* 158, 306 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 1995: “*Generation and Transport of Radiation*”, translated by R.C. Peterson, edited by D. Kiselman, lecture notes Utrecht University 1-180 [pdf](#) [bib](#)
- Rutten, R.J., Carlsson, M., 1994: “*The Formation of Infrared Rydberg Lines*” in Rabin, D.M., Jefferies, J.T., Lindsey, C. (eds.), “*Infrared Solar Physics*”, *IAU Symposium* 154, 309-322 [pdf](#) [bib](#) [ADS](#)
- Carlsson, M., Rutten, R.J., 1994: “*Computation of Infrared Hydrogen Lines*” in Rabin, D.M., Jefferies, J.T., Lindsey, C. (eds.), “*Infrared Solar Physics*”, *IAU Symposium* 154, 341-346 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 1993: “*Introduction to Solar Spectrum Formation*”, lecture notes National Solar Observatory, Sunspot 1-40 [pdf](#) [bib](#)
- Bruls, J.H.M.J., Rutten, R.J., 1992: “*The formation of helioseismology lines. II - Modeling of alkali resonance lines with granulation*”, *Astron. Astrophys.* 265, 257-267 [pdf](#) [bib](#) [ADS](#)
- Bruls, J.H.M.J., Rutten, R.J., Shchukina, N.G., 1992: “*The formation of helioseismology lines. I - NLTE effects in alkali spectra*”, *Astron. Astrophys.* 265, 237-256 [pdf](#) [bib](#) [ADS](#)
- Carlsson, M., Rutten, R.J., 1992: “*Solar hydrogen lines in the infrared*”, *Astron. Astrophys.* 259, L53-L56 [pdf](#) [bib](#) [ADS](#)
- Carlsson, M., Rutten, R.J., Shchukina, N.G., 1992: “*The formation of the Mg I emission features near 12 μ m*”, *Astron. Astrophys.* 253, 567-585 [pdf](#) [bib](#) [ADS](#)
- Carlsson, M., Rutten, R.J., Shchukina, N.G., 1992: “*Formation of the Mg I 12 μ m Lines*” in Giampapa, M.S., Bookbinder, J.A. (eds.), “*Cool Stars, Stellar Systems, and the Sun*”, *Astron. Soc. Pacific Conf. Series* 26, 518-520 [pdf](#) [bib](#) [ADS](#)
- Gomez, M.T., Severino, G., Rutten, R.J., 1991: “*Photospheric dynamics and the NLTE formation of the solar K I 769.9 nm line*”, *Astron. Astrophys.* 244, 501-510 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., 1990: “*Sun-as-a-star line formation*” in Wallerstein, G. (ed.), “*Cool Stars, Stellar Systems, and the Sun*”, *Astron. Soc. Pacific Conf. Series* 9, 91-102 [pdf](#) [bib](#) [ADS](#)
- Shchukina, N.G., Shcherbina, T.G., Rutten, R.J., 1990: “*Temperature Diagnostics of the Upper Photosphere*” in Stenflo, J.O. (ed.), “*Solar Photosphere: Structure, Convection, and Magnetic Fields*”, *IAU Symposium* 138, 29-34 [pdf](#) [bib](#) [ADS](#)
- Carlsson, M., Rutten, R.J., Shchukina, N.G., 1990: “*The formation of the Mg I 12-micron emission lines.*”, *Publications Debrecen Heliophysical Observatory* 7, 260-261 [pdf](#) [bib](#) [ADS](#)
- Bruls, J.H.M.J., Uitenbroek, H., Rutten, R.J., 1989: “*The granulation sensitivity of neutral metal Lines*” in Rutten, R.J., Severino, G. (eds.), “*Solar and Stellar Granulation*”, *Kluwer, Dordrecht*, 311-312 *NATO ASI Series C-263* [pdf](#) [bib](#)
- Gomez, M.-T., Severino, G., Rutten, R.J., 1989: “*Granulation and the NLTE Formation of K I 769.9*” in Rutten, R.J., Severino, G. (eds.), “*Solar and Stellar Granulation*”, *Kluwer, Dordrecht*, 565-566 *NATO ASI Series C 263* [pdf](#) [bib](#)
- Rutten, R., Bruls, J., 1989: “*Description of NLTE analysis Ni I 676.78 nm line*”, *GONG Newsletter* 10, 4-5 [pdf](#) [bib](#)
- Rutten, R.J., 1988: “*The NLTE formation of iron lines in the solar photosphere*” in Viotti, R., Vittone, A., Friedjung, M. (eds.), “*IAU Colloq. 94: Physics of Formation of Fe II Lines Outside LTE*”, *Astrophys. Space Sci. Library* 138, 185-210 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., Kostik, R.I., 1988: “*Empirical gf-determination from the solar spectrum*” in Viotti, R., Vittone, A., Friedjung, M. (eds.), “*IAU Colloq. 94: Physics of Formation of FE II Lines Outside LTE*”, *Astrophysics and Space Science Library* 138, 83-92 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., Bruls, J.H.M.J., Gomez, M.T., Severino, G., 1988: “*The granulation sensitivity of helioseismology lines*” in Rolfe, E.J. (ed.), “*Seismology of the Sun and Sun-Like Stars*”, *ESA Special Publication* 286, 251-255 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., van der Zalm, E.B.J., 1984: “*Revision of solar equivalent widths, Fe I oscillator strengths and the solar iron abundance*”, *Astron. Astrophys. Suppl.* 55, 143-161 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., Zwaan, C., 1983: “*Empirical NLTE analyses of solar spectral lines. IV - The Fe I curve of growth*”, *Astron. Astrophys.* 117, 21-32 [pdf](#) [bib](#) [ADS](#)

- Rutten, R.J., 1983: “NLTE masking and the Kiev Fe I oscillator strengths”, *Highlights of Astronomy* 6, 801-803 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., Kostik, R.I., 1982: “Empirical NLTE analyses of solar spectral lines. III - Iron lines versus LTE models of the photosphere”, *Astron. Astrophys.* 115, 104-114 [pdf](#) [bib](#) [ADS](#)
- Rutten, R.J., Stencel, R.E., 1980: “Solar limb emission lines near Ca II H&K and their spatial intensity variations”, *Astron. Astrophys. Suppl.* 39, 415-422 [pdf](#) [bib](#) [ADS](#)
- Cram, L.E., Rutten, R.J., Lites, B.W., 1980: “On the formation of Fe II lines in stellar spectra. I - Solar spatial intensity variation of λ 3969.4”, *Astrophys. J.* 241, 374-384 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Cram, L.E., Rutten, R.J., Lites, B.W., 1980: “Diagnostic Use of Fe II H and K Wing Emission Lines” in Gray, D.F., Linsky, J.L. (eds.), “IAU Colloq. 51: Stellar Turbulence”, *Lecture Notes in Physics*, Berlin Springer Verlag 114, 102 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., Milkey, R.W., 1979: “Partial redistribution in the solar photospheric Ba II spectrum”, *Astrophys. J.* 231, 277-283 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R.J., 1978: “Empirical NLTE analyses of solar spectral lines. II - The formation of the Ba II λ 4554 resonance line”, *Solar Phys.* 56, 237-262 [pdf](#) [bib](#) [ADS](#) [DOI](#)
- Rutten, R., 1976: “Solar eclipse observations and Ba II line formation”, PhD thesis Utrecht University 1-120 [pdf](#) [bib](#) [ADS](#)