

NAME: Petr Pisoft
EMAIL: petr.pisoft@mff.cuni.cz
YEAR OF BIRTH: 1979

**EDUCATION:**

Major subjects:	Physics, Atmospheric Physics, Meteorology, Climatology
Degree:	prof. (full professorship, 2023), doc. (Associate Professor, 2012), Ph.D. (2006), RNDr. (Rerum Naturalium Doctor, 2003), Mgr. (MSc., 2002)
2008–2011	Bcs. studies, Philosophical Faculty, Palacky University Olomouc
2002–2006	Doctoral studies, Faculty of Mathematics and Physics, Charles University in Prague
1997–2002	MSc. studies, Faculty of Mathematics and Physics, Charles University in Prague

EXPERIENCE & LECTURING:

**Charles University in Prague, Faculty of Mathematics and Physics,
Department of Atmospheric Physics, 2006–present**

- head of the department (since 2014)
- supervisor of MSc. and Ph.D. theses
- lectures: Stratosphere (since 2007), Oceans in the climate system (since 2007), Atmospheric Physics Proseminar (since 2014), Methods of atmospheric remote sensing (since 2019), Middle Atmosphere Dynamics (since 2018), Propagation of Acoustic and Electromagnetic Waves in Atmosphere (since 2018), User friendly linux (2007–2015), Bases of applied physics of atmosphere (2012–2019), Models output analysis (2012–2019), Special climatological seminar (2012–2018), Meteorological computer seminar (2007–2013), Meteorological seminar for bachelors (since 2007), Data processing and visualisation in meteorology I (2012–2019), Statistical methods in meteorology and climatology (2003–2005), Seminar of the data treatment methods in physics (2003–2005)

**Czech University of Life Sciences Prague, Faculty of Agrobiology, Food and Natural Resources,
Department of Agroecology and Biometeorology, 2010–present**

- supervisor of Msc. theses
- lectures: Air quality (since 2010), Applied Meteorology and Climatology (since 2014)

RESEARCH INTEREST:

My research area is generally atmospheric physics, meteorology, and climatology. I focus on the dynamics and variability of the middle atmospheric processes, mainly on the large-scale circulation, analysis of the wave activity, the impact of localized gravity wave forcing, or long-term trends. Over the past decade, a group oriented on middle atmospheric processes has been established under my supervision. This research is unique in the Czech Republic and we actively collaborate with other research teams abroad. Most of our studies are focused on the dynamical processes, wave forcing, trends, etc., utilizing a specific approach, including, e.g., GPS RO analysis and numerical simulations.

Besides the middle atmospheric studies, I have participated in research aiming at regional modeling, historical climate or atmospheric chemistry and urban climate. My lectures also cover subjects of atmospheric chemistry, air quality and physical oceanography.

THESES SUPERVISION:

- 3 Dissertation theses (1 ongoing, 2 defended, atmospheric physics, meteorology and climatology, Charles University in Prague)
- 5 Master theses (5 defended, atmospheric physics, meteorology and climatology, Charles University in Prague)
- 15 Master theses (1 ongoing, 13 defended, air quality and atmospheric chemistry, Czech University of Life Sciences Prague)
- 4 Bachelor theses (1 ongoing, 3 defended, atmospheric physics, meteorology and climatology, Charles University in Prague)
- 6 Student's project (atmospheric physics, meteorology and climatology, Charles University in Prague)

CITATIONS AND AUTHOR ID:

H-index (March 2023): 15 (WoS), 15 (Scopus), 17 (Google Scholar)

Number of citations (March 2023): 550 (WoS), 559 (Scopus), 941 (Google Scholar)

ORCID: 0000-0002-5034-9169

ResearcherID: A-2422-2010

Scopus Author ID: 7801594925

Google Scholar ID: -NtQA1oAAAAJ

INTERNATIONAL COLLABORATION:

- Institute for Meteorology, University of Leipzig, Germany, research collaboration focused on the middle atmospheric dynamics and gravity waves, since 2014, 2 international projects, short-term visits
- Institute for Geophysics, Astrophysics, and Meteorology/Inst. of Physics and Wegener Center for Climate and Global Change, University of Graz, Austria, research collaboration focused on GPS RO profiles and gravity waves, since 2013, short-term visits, 3 months research visit in 2017, 4 months research visit in 2019
- Environmental Physics Laboratory, Faculty of Sciences of Ourense, University of Vigo, Spain, research collaboration focused on the middle atmospheric processes, since 2018
- University of Natural Resources and Life Sciences, Institute of Meteorology, Vienna, Austria, collaboration focused on the middle atmospheric processes, since 2019

OTHER ACTIVITIES:

- topical editor of *Annales Geophysicae* journal (ISSN 0992-7689/1432-0576)
- member of editorial board of *Advances in Mathematics, Physics and Astronomy* journal (ISSN 0032-2423)
- member of Board for Doctoral Studies in *Physics* (MFF UK)
- chairman of Board for Doctoral Studies P4F8 *Atmospheric Physics, Meteorology and Climatology* (MFF UK)
- guarantor of doctoral studies P4F8 *Atmospheric Physics, Meteorology and Climatology* (MFF UK)
- guarantor of master studies *Atmospheric Physics, Meteorology and Climatology* (MFF UK)
- member of Board for Doctoral Studies *Exploitation and Conservation of Natural Resources* 4106V029 (ČZU)
- member of Board for Doctoral Studies *Social Ecology* (FHS UK)
- member of Evaluation Panel P209 *Atmospheric Sciences, Hydrology, Physical Geography and Geophysics* of Czech Science Foundation
- member of the panel of evaluators of the National Accreditation Office in the field of *Physics* and *Earth Sciences*

RESEARCH PROJECTS:

- Impacts of Climate Change on the Middle and Upper Atmosphere and Atmospheric Drag of Space Objects, international project ISSI team 544 (**co-investigator**), 2022–2023
- Middle atmosphere localized gravity wave forcing - formation, impact, and long-term evolution (MATELO-FILE), international project, GACR 21-20293J (**principal investigator**), 2021–2023
- Long-term trends of anthropogenic and natural origin in the stratosphere and upper atmosphere, GACR 21-03295S (**co-investigator**), 2021–2023
- Nonlinear interactions and information transfer in complex systems with extreme events, GACR 19-16066S (**team member**), 2019–2021
- Automatic generation of synoptic maps, InMeteo, applied research project MFF UK (**team member**), 2018
- The influence of greenhouse gases and other drivers on long-term trends in the stratosphere-mesosphere-thermosphere-ionosphere system, GACR 18-01625S (**co-investigator**), 2018–2020
- Synoptic situations in Central Europe and the influence of meteorological variables/RES production on electricity price, ČEZ a.s., applied research project MFF UK SMV/100473, **principal investigator**, 2018
- Analysis of specific meteorological processes, modelling and prediction assessment, and visualisation of the results, ČEZ a.s., applied research project MFF UK SMV/100352 (**principal investigator**), 2017
- Analysis of circulation in idealized model of uranium tailings on Příbram deposit, Diamo, applied research project MFF UK 17/002 (**team member**), 2017
- Middle atmosphere effects of localized gravity wave forcing - MATELO, international project GACR 16-01562J (**principal investigator**), 2016–2018
- Global climatology of the wind vector rotation – implications for the orographic internal gravity waves propagation, international project MOBILITY, MŠMT 7AMB16AT021 (**principal investigator**), 2016–2017
- Waves processes in the middle atmosphere and their significance for the coupling of selected atmospheric regions, GAUK 1474314 (**supervisor**), 2014–2016
- Regional climate models outputs for Czech Republic in 2015 – 2060, Gropolis, applied research project MFF UK SMV/100112 (**principal investigator**), 2016
- Stratospheric dynamics and coupling with troposphere and mesosphere, GAUK 108313 (**supervisor**), 2013–2015
- Global and regional climate model simulations in Central Europe in the 18th-20th centuries in comparison with observed and reconstructed climate, GACR P209/11/0956 (**team member**), 2011–2015
- Impact-targeted validation of statistical and dynamical downscaling models, GACR 205/08/1619 (**team member**), 2008–2012
- Specification of existing estimates of climate change impacts in hydrology, water management, agriculture and forestry sectors and proposals for adaptation options, SP/1a6/108/07 (**team member**), 2008–2012
- Analysis of regular oscillations in the climate system, GACR 205/07/p199 (**principal investigator**), 2006–2009
- Atmospheric teleconnections across North Atlantic region, GACR 205/05/2282 (**team member**), 2004–2007
- Development of regional climatic model, GACR 205/01/0804 (**team member**), 2003–2004
- Atlas of climate in the Czech Republic, VaV/740/2/03 (**team member**), 2002–2004
- Climatic change and the climate fluctuation, VaV/740/1/01 (**team member**), 2001–2002
- Solar wind instabilities and their propagation through the bow shock, 163/2000/B-FYZ/MFF (**team member**), 2000–2002
- Location and motion of the Earth's magnetopause and bow shock, 181/1999/B-FYZ/MFF (**team member**), 1999–2001
- Low-frequency variations of the ion flux in the magnetosheath (**team member**), 1999–2001

REVIEWED PAPERS WITH IF:

1. Eichinger, R., Rhode, S., Garny, H., Preusse, P., **Pisoft**, P., Kuchař, A., Jöckel, P., Kerkweg, A., and Kern, B.: Emulating lateral gravity wave propagation in a global chemistry–climate model (EMAC v2.55.2) through horizontal flux redistribution, *Geosci. Model Dev.*, 16, 5561–5583, <https://doi.org/10.5194/gmd-16-5561-2023>, **2023**
2. Karami, K., Borchert, S., Eichinger, R., Jacobi, C., Kuchar, A., Mehrdad, S., **Pisoft** P., Sacha P. (**2023**). The climatology of elevated stratopause events in the UA-ICON model and the contribution of gravity waves. *Journal of Geophysical Research: Atmospheres*, 128, e2022JD037907. <https://doi.org/10.1029/2022JD037907>
3. Brazdil, R., Dobrovolný, P., Miksovský, J., **Pisoft**, P., Trnka, M., Mozný, M., and Balek, J.: Documentary-based climate reconstructions in the Czech Lands 1501–2020 CE and their European context, *Clim. Past*, 18, 935–959, <https://doi.org/10.5194/cp-18-935-2022>, **2022**
4. Sacha P, Kuchar A, Eichinger R, **Pisoft** P, Jacobi Ch, Rieder HE (**2021**): Diverse dynamical response to orographic gravity wave drag hotspots — a zonal mean perspective, *Geophys. Res. Lett.*, 48, e2021GL093305. <https://doi.org/10.1029/2021GL093305>
5. **Pisoft** P, Sacha P, Polvani LM, Anel JA, de la Torre L, Eichinger R, Foelsche U, Huszar P, Jacobi C, Karlický J, Kuchar A, Miksovský J, Zak M and Rieder HE (**2021**): Stratospheric contraction caused by increasing greenhouse gases, to appear in *Env. Res. Lett.*, 16, 064038, <https://doi.org/10.1088/1748-9326/abfe2b>
6. Samtleben N, Kuchar A, Sacha P, **Pisoft** P, Jacobi C (**2020**): Mutual Interference of Local Gravity Wave Forcings in the Stratosphere. *Atmosphere* 2020, 11, 1249.
7. Samtleben, N., Kuchar, A., Sacha, P., **Pisoft**, P., and Jacobi, C. (**2020**): Impact of local gravity wave forcing in the lower stratosphere on the polar vortex stability: effect of longitudinal displacement, *Ann. Geophys.*, 38, 95–108, <https://doi.org/10.5194/angeo-38-95-2020>, 2020.
8. Huszar, P., Karlický, J., Doubalová, J., Sindelarova, K., Novakova, T., Belda, M., Halenka, T., Zak, M., and **Pisoft**, P. (**2020**): Urban canopy meteorological forcing and its impact on ozone and PM2.5: role of vertical turbulent transport, *Atmos. Chem. Phys.*, 20, 1977–2016, <https://doi.org/10.5194/acp-20-1977-2020>, 2020.
9. Samtleben, N., Jacobi, C., **Pisoft**, P., Sacha, P., and Kuchar, A. (**2019**): Effect of latitudinally displaced gravity wave forcing in the lower stratosphere on the polar vortex stability, *Ann. Geophys.*, 37, 507–523, <https://doi.org/10.5194/angeo-37-507-2019>, 2019
10. Sacha, P., Eichinger, R., Garny, H., **Pisoft**, P., Dietmüller, S., de la Torre, L., Plummer, D. A., Jöckel, P., Morgenstern, O., Zeng, G., Butchart, N., and Añel, J. A. (**2019**): Extratropical age of air trends and causative factors in climate projection simulations, *Atmos. Chem. Phys.*, 19, 7627–7647, <https://doi.org/10.5194/acp-19-7627-2019>, 2019.
11. Huszar, P., Belda, M., Karlický, J., Bardachova, T., Halenka, T., and **Pisoft**, P. (**2018**): Impact of urban canopy meteorological forcing on aerosol concentrations, *Atmos. Chem. Phys.*, 18, 14059–14078, <https://doi.org/10.5194/acp-18-14059-2018>, 2018
12. Miksovský, J., Brazdil, R., Trnka, M., and **Pisoft**, P. (**2019**): Long-term variability of drought indices in the Czech Lands and effects of external forcings and large-scale climate variability modes, *Clim. Past*, 15, 827–847, <https://doi.org/10.5194/cp-15-827-2019>, 2019.
13. Sacha, P., Miksovský, J., and **Pisoft**, P. (**2018**): Interannual variability of the gravity wave drag – vertical coupling and possible climate links, *Earth Syst. Dynam.*, 9, 647–661, <https://doi.org/10.5194/esd-9-647-2018>, 2018
14. Karlický, J., Huszar, P., Halenka, T., Belda, M., Zak, M., **Pisoft**, P., and Miksovský, J. (**2018**): Multi-model comparison of urban heat island modelling approaches, *Atmos. Chem. Phys.*, 18, 10655–10674, <https://doi.org/10.5194/acp-18-10655-2018>
15. Huszar P, Karlický J, Belda M, Halenka T, and **Pisoft** P (**2018**): The impact of urban canopy meteorological forcing on summer photochemistry, *Atmospheric Environment*, 176, 209–228, DOI:10.1016/j.atmosenv.2017.12.037, 2018
16. **Pisoft**, P., Sacha, P., Miksovský, J., Huszar, P., Scherlin-Pirscher, B., and Foelsche, U. (**2018**): Revisiting internal gravity waves analysis using GPS RO density profiles: comparison with temperature profiles and application for wave field stability study, *Atmos. Meas. Tech.*, 11, 515–527, DOI: 10.5194/amt-11-515-2018, 2018.
17. Kuchar, A., W. T. Ball, E. V. Rozanov, A. Stenke, L. Revell, J. Miksovský, P. **Pisoft**, and T. Peter (**2017**), On the aliasing of the solar cycle in the lower stratospheric tropical temperature, *J. Geophys. Res. Atmos.*, 122, 9076–9093, DOI:10.1002/2017JD026948
18. Sacha, P., Lilenthal, F., Jacobi, C., and **Pisoft**, P. (**2016**): Influence of the spatial distribution of gravity wave activity on the middle atmospheric dynamics, *Atmos. Chem. Phys.*, 16, 15755–15775, DOI:10.5194/acp-16-15755-2016, 2016
19. Huszar P, Belda M, Karlický J, **Pisoft** P, and Halenka T (**2016**): The regional impact of urban emissions on climate over central Europe: present and future emission perspectives, *Atmos. Chem. Phys.*, 16, 12993–13013, DOI:10.5194/acp-16-12993-2016, 2016.

20. Miksovsky, J., Holtanova, E., and **Pisoft, P.** (2016): Imprints of climate forcings in global gridded temperature data, *Earth Syst. Dynam.*, 7, 231–249, DOI:10.5194/esd-7-231-2016, 2016
21. Zak M., Miksovsky J., **Pisoft P.** (2015): CMSAF Radiation Data: New Possibilities for Climatological Applications in the Czech Republic, *Remote Sens.* 7(11), 14445–14457; DOI:10.3390/rs71114445
22. Sacha, P., Kuchar, A., Jacobi, C., and **Pisoft, P** (2015).: Enhanced internal gravity wave activity and breaking over the Northeastern Pacific / Eastern Asian region, *Atmos. Chem. Phys.*, 15, 13097–13112, DOI:10.5194/acp-15-13097-2015, 2015.
23. Kuchar, A., Sacha, P., Miksovsky, J., and **Pisoft, P.** (2015): The 11-year solar cycle in current reanalyses: a (non)linear attribution study of the middle atmosphere, *Atmos. Chem. Phys.*, 15, 6879–6895, DOI:10.5194/acp-15-6879-2015, 2015.
24. Huth R., Miksovsky J., Stepanek P., Belda M., Farda A., Chladova Z., **Pisoft P.** (2015): Comparative validation of statistical and dynamical downscaling models on a dense grid in central Europe: temperature, *Theor. and Applied Climatology*, 120(3), pp 533–553.
25. Miksovsky J., Brazdil R., Stepanek P., Zahradnicek P., **Pisoft P.** (2014): Long-term variability of temperature and precipitation in the Czech Lands: an attribution analysis, *Climatic Change*, 125 (2), pp 253–264, DOI: 10.1007/s10584-014-1147-7
26. P. Sacha, U. Foelsche, P. **Pisoft** (2014): Analysis of internal gravity waves with GPS RO density profiles, *Atmos. Meas. Tech.*, 7, 4123–4132, doi:10.5194/amt-7-4123-2014
27. Holtanova, E., Kalvova, J., **Pisoft**, P., Miksovsky, J., (2014): Uncertainty in regional climate model outputs over the Czech Republic: the role of nested and driving models, *Int. Journal of Climatology*, 34(1), pp. 637–646, DOI: 10.1002/joc.3663
28. **Pisoft**, P., Holtanova, E., Huszar, P., Kalvova, J., Miksovsky, J., Raidl, A., Žak, M., Zemankova, K., (2013): Manifestation of reanalyzed QBO and SSC signals, *Theoretical and Applied Climatology*, 112 (3-4), pp. 637–646, DOI: 10.1007/s00704-012-0752-5
29. Brazdil R., Zahradnicek P., **Pisoft** P., Stepanek P., Belinova M., Dobrovolny P. (2012): Temperature and precipitation fluctuations in the Czech Republic during the period of instrumental measurement, *Theoretical and Applied Climatology*, 110 (1-2), pp. 17–34, DOI: 10.1007/s00704-012-0604-3
30. Holtanova, E., Miksovsky, J., Kalvova, J., **Pisoft**, P., Motl, M. (2012): Performance of ENSEMBLES regional climate models over Central Europe using various metrics, *Theoretical and Applied Climatology*, 108(3-4), pp. 463–470 DOI: 10.1007/s00704-011-0542-5
31. Huszar P, Miksovsky J, **Pisoft** P, Belda M, Halenka T, (2012): Interactive coupling of a regional climate model and a chemical transport model: evaluation and preliminary results on ozone and aerosol feedback. *Clim Res*, 51, pp. 59–88 DOI:10.3354/cr01054
32. **Pisoft**, P., Holtanova, E., Huszar, P., Miksovsky, J., Žak, M., (2012): Imprint of the 11-year solar cycle in reanalyzed and radiosonde datasets: a spatial frequency analysis approach, *Climatic Change*, 110(1-2), pp. 85–99, DOI: 10.1007/s10584-011-0147-0
33. **Pisoft**, P., Miksovsky, J., Kalvova, J., Raidl, A., Žak, M., (2011): Areal analysis of oscillations in 500 hPa temperature field: a pseudo-2D wavelet transform approach, *Int. Journal of Climatology*, 31(10), pp. 1545–1553 DOI: 10.1002/joc.2167
34. Holtanova, E., Kalvova, J., Miksovsky, J., **Pisoft**, P., Motl, M. (2010): Analysis of uncertainties in regional climate model outputs over the Czech Republic. *Studia Geophysica et Geodaetica*, 54, pp. 513–528, DOI: 10.1007/s11200-010-0030-x
35. Huszar, P., Cariolle, D., Paoli, R., Halenka, T., Belda, M., Schlager, H., Miksovsky, J. and **Pisoft, P.** (2010). Modeling the regional impact of ship emissions on NOx and ozone levels over the Eastern Atlantic and Western Europe using ship plume parameterization, *Atmospheric Chemistry and Physics*, 10(14), pp. 6645–6660, DOI: 10.5194/acp-10-6645-2010
36. **Pisoft**, P., Miksovsky, J. (2009): An analysis of the spatial distribution of approximate 8 years periodicity in NCEP/NCAR and ERA-40 temperature fields, *European Journal of Physics*, 174, p. 147–155, DOI: 10.1140/epjst/ e2009-01097-3
37. **Pisoft**, P., Kalvova, J., Brazdil, R., (2004): Cycles and Trends in the Czech Temperature Series Using Wavelet Transforms, *Int. Journal of Climatology* 24, 13, pp. 1661–1670
38. Nemecek, Z., J. Safrankova, G. N. Zastenker, P. **Pisoft**, and K.Jelinek (2002): Low-frequency variations of the ion flux in the magnetosheath, *Planetary and Space Science*, 50, 5–6, 2002, pp. 567–575.

39. Nemecek, Z., J. Safrankova, G. N. Zastenker, and P. **Pisoft** (**2001**): Statistical study of ion flux fluctuations in the magnetosheath, *Czech. J. Phys.*, 51, pp. 853-862
40. Nemecek, Z., J. Safrankova, G. N. Zastenker, P. **Pisoft**, and K. I. Paularena (**2000**): Spatial distribution of the magnetosheath ion flux, 33rd COSPAR Scientific Assembly, July 16-23, Warsaw, *Adv. Space Res.*, 30(12), 2751–2756
41. Nemecek, Z., J. Safrankova, G. N. Zastenker, P. **Pisoft**, K. I. Paularena, and J. D. Richardson (**2000**): Observations of the radial magnetosheath profile and a comparison with gasdynamic model predictions, *Geophys. Res. Lett.*, 27, No.17, pp. 2801-2804.

REVIEWED DISCUSSION PAPERS:

1. Eichinger, R., Rhode, S., Garny, H., Preusse, P., **Pisoft**, P., Kuchar, A., Jöckel, P., Kerkweg, A., and Kern, B.: Emulating lateral gravity wave propagation in a global chemistry-climate model (EMAC v2.55.2) through horizontal flux redistribution, EGUsphere [preprint], <https://doi.org/10.5194/egusphere-2023-270>, **2023**
2. Kuchar, A., Sacha, P., Eichinger, R., Jacobi, C., **Pisoft**, P., and Rieder, H.: On the impact of Himalaya-induced gravity waves on the polar vortex, Rossby wave activity and ozone, EGUsphere [preprint], <https://doi.org/10.5194/egusphere-2022-474>, **2022**
3. Kuchar, A., Sacha, P., Eichinger, R., Jacobi, C., **Pisoft**, P., and Rieder, H. E. (**2020**): On the intermittency of orographic gravity wave hotspots and its importance for middle atmosphere dynamics, *Weather Clim. Dynam. Discuss.*, <https://doi.org/10.5194/wcd-2020-21>
4. Samtleben, N., Kuchař, A., Šácha, P., **Pisoft**, P., and Jacobi, C. (**2020**): Impact of local gravity wave forcing in the lower stratosphere on the polar vortex stability: effect of longitudinal displacement, *Ann. Geophys. Discuss.*, <https://doi.org/10.5194/angeo-2019-120>
5. Huszar, P., Karlický, J., Ďoubalová, J., Šindelářová, K., Nováková, T., Belda, M., Halenka, T., Žák, M., and **Pisoft**, P. (**2020**): Urban canopy meteorological forcing and its impact on ozone and PM2.5: role of vertical turbulent transport, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2019-486>
6. Samtleben, N., Jacobi, C., **Pisoft**, P., Sacha, P., and Kuchar, A. (**2019**): Effect of latitudinally displaced gravity wave forcing in the lower stratosphere on the polar vortex stability, *Ann. Geophys. Discuss.*, <https://doi.org/10.5194/angeo-2019-15>
7. Sacha, P., Eichinger, R., Garny, H., **Pisoft**, P., Dietmüller, S., de la Torre, L., Plummer, D. A., Jöckel, P., Morgenstern, O., Zeng, G., Butchart, N., and Añel, J. A. (**2019**): Extratropical Age of Air trends and causative factors in climate projection simulations, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2018-1310>
8. Huszar, P., Belda, M., Karlický, J., Bardachova, T., Halenka, T., and **Pisoft**, P. (**2018**): Impact of urban canopy meteorological forcing on aerosol concentrations, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2018-415>
9. Miksovsky J, Brazdil R, Trnka M., **Pisoft** P (**2018**): Long-term variability of droughts in the Czech Lands and large-scale climate drivers, *Clim. Past. Discuss.*, <https://doi.org/10.5194/cp-2018-61>
10. Karlický J, Huszar P, Halenka T, Zak M, Miksovsky J, and **Pisoft** P (**2018**): Multi-model comparison of UHI modeling approaches, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2018-3>
11. Sacha, P., Miksovsky, J., and **Pisoft**, P. (**2018**): Interannual variability of the gravity wave drag – vertical coupling and possible climate links, *Earth Syst. Dynam. Discuss.*, DOI:10.5194/esd-2018-1
12. **Pisoft**, P., Sacha, P., Miksovsky, J., Huszar, P., Scherlin-Pirscher, B., and Foelsche, U. (**2017**): Revisiting internal gravity waves analysis using GPS RO density profiles: comparison with temperature profiles and application for wave field stability study, *Atmos. Meas. Tech. Discuss.*, DOI:10.5194/amt-2017-238
13. Sacha, P., Lilenthal, F., Jacobi, C., and **Pisoft**, P. (**2016**): Influence of the spatial distribution of gravity wave activity on the middle atmospheric circulation and transport, *Atmos. Chem. Phys. Discuss.*, DOI:10.5194/acp-2016-548
14. Miksovsky, J., Holtanova, E., and **Pisoft**, P. (**2015**): Imprints of climate forcings in global gridded temperature data, *Earth Syst. Dynam. Discuss.*, 6, 2339-2381, DOI:10.5194/esdd-6-2339-2015
15. Sacha, P., Kuchar, A., Jacobi, C., and **Pisoft**, P. (**2015**): Enhanced internal gravity wave activity and breaking over the Northeastern Pacific/Eastern Asian region, *Atmos. Chem. Phys. Discuss.*, 15, 18285-18325, DOI:10.5194/acpd-15-18285-2015, 2015
16. Kuchar, A., Sacha, P., Miksovsky, J., and **Pisoft**, P. (**2014**): Solar cycle in current reanalyses: (non)linear attribution study, *Atmos. Chem. Phys. Discuss.*, 14, 30879-30912, DOI:10.5194/acpd-14-30879-2014.

17. Sacha, P., Foelsche, U., and **Pisoft, P.** (2014): Analysis of internal gravity waves with GPS RO density profiles, *Atmos. Meas. Tech. Discuss.*, 7, 8311-8338, DOI:10.5194/amt-7-8311-2014.
18. Huszar, P., Cariolle, D., Paoli, R., Halenka, T., Belda, M., Schlager, H., Miksovsky, J. And **Pisoft, P.** (2010). Modeling the regional impact of ship emissions on NOx and ozone levels over the Eastern Atlantic and Western Europe using ship plume parameterization, *Atmos. Chem. Phys. Discuss.*, 9(6), pp. 26735-26776, DOI:10.5194/acpd-9-26735-2009

THESES:

1. **Pisoft, P.** (2012): Manifestation of reanalyzed QBO and SSC signals, 2012, Habilitation thesis, Charles University, 107pp
2. **Pisoft, P.** (2006): Climate System Variability by the Pseudo-2D Wavelet Transform, 2006, Ph.D. thesis, Charles University, 97pp
3. **Pisoft, P.** (2002): Wavelet Analysis of Meteorological time series, 2002, MSc. thesis, Charles University, 93pp

OTHER REVIEWED PUBLICATIONS:

1. Kuchar, A., Sacha, P., Eichinger, R., Jacobi, C., **Pisoft, P.** and Rieder, H. E. (2020): On the intermittency of orographic gravity wave hotspots and its importance for middle atmosphere dynamics, *Weather Clim. Dynam.*, 1, 481-495, <https://doi.org/10.5194/wcd-1-481-2020>, 2020.
2. Miksovsky, J., P. **Pisoft** (2015), Attribution of European temperature variability during 1882-2010: A statistical perspective, in *Global Change: A Complex Challenge* (Eds.: Urban, O., M. Šprtová, and K. Klem), Global Change Research Centre AS CR, Brno, 10-13, ISBN 978-80-87902-10-3
3. Zak M., Sacha P., **Pisoft** P. (2013): On the use of the CM-SAF cloud-data in the czech republic, in *Proceedings of SPIE - The International Society for Optical Engineering*, 8795, art. no. 87950M, DOI: 10.1117/12.2027727
4. Bednar J., Huszar P., Zemankova K., **Pisoft** P. (2013): Srovnani modelovych odhadu obsahu formaldehydu ve sloupce atmosfery s družicovym merenim - pilotni studie, *Meteorologicke zpravy*, rocnik 66, c. 4, pp. 110-116.
5. Brazdil R., Belinova M., Dobrovolsky P., Miksovsky J., **Pisoft** P., Reznickova L., Stepanek P., ValaSek H., Zahradnicek P., (2012): Temperature and precipitation fluctuations in the Czech Republic during the instrumental period, Brno, Masaryk University press, 236 p., ISBN 978-80-210-6052-4
6. Kalvova, J., Holtanova, E., Motl, M., Miksovsky, J., **Pisoft**, P., Raidl, A. (2010): Odhad rozsahu zmen klimatu na území Ceske republiky pro tri casova obdobu 21. stoleti na zaklade vystupu AR4 modelu. *Meteorologicke zpravy*, rocnik 63, c. 2, pp. 57-66.
7. Kalvova, J., Holtanova, E., Miksovsky, J., Motl, M., **Pisoft**, P., Raidl, A., Farda, A., Kliegrova, S., Metelka, L. (2009): Vyber globalnich klimatickych modelu pro posouzeni neurcitosti odhadu budoucich zmen klimatu v oblasti CR. *Meteorologicke zpravy*, 62, pp. 97-106.
8. Miksovsky, J., **Pisoft**, P., Raidl, P., (2007): Global Patterns of Nonlinearity in Real and GCM-simulated Atmospheric Data. In: *Nonlinear Time Series Analysis in the Geosciences - Applications in Climatology, Geodynamics, and Solar-Terrestrial Physics* (eds. R. Donner, S. Barbosa), *Geodynamics and Solar-terrestrial Physics, Lecture Notes in Earth Science* 112, 17-34
9. Kalvova, J., Chladova, Z., Miksovsky, J., **Pisoft**, P., Raidl, A. (2005): Vytvoreni scenaru zmen klimatu pro Cesku republiku. Vyzkumna zprava projektu VZ 01 VODA, subprojekt 03 Dopady klimatickych a antropogennich zmen na hydrologicke a ekologicke systemy. MFF UK, Praha
10. **Pisoft**, P., Kalvova, J. (2005): Wavelet analiza v meteorologii: teorie a prehled dosavadnich vysledku, *Meteorologicke Zpravy*, 58, 1, pp. 1-10.
11. **Pisoft**, P., Kalvova, J. (2003): Climate Quantities Interconnections and the Wavelet Transform of Secular Meteorological Time Series, in *WDS'03 Proceedings of Contributed Papers: Part II - Physics* (ed. J. Safrankova), Prague, 2003, Matfyzpress, pp. 556-561.
12. Shevrev, N. N., G. N. Zastenker, and P. **Pisoft**: (2000): Statistical study of the fast ion flux variations in the magnetosheat and solar wind, Proceed. of Contribution Papers: Part II – Physics of Plasmas and Ionized Media, ed. by J. Safrankova, Praha, Matfyzpress, 2000, pp. 208-213.

OTHER PUBLICATIONS & CONFERENCES:

1. Eichinger R, **Pisoft** P, Sacha P, Anel J, Reider H, Zak M, Karlicky J, Polvani L, Kuchar A, de la Torre L, Foelsche U, Huszar P, Jacobi C, Miksovsky J, Zajicek R: On the Processes causing Stratospheric Contraction and its Implications, In AGU Fall Meeting Abstracts (pp. A52Q-1230), AGU Fall Meeting, 12-16 December, Chicago, **2022**
2. Hajkova D, Sacha R, Eichinger R, **Pisoft** P: Explanation for Differences in Vertical Distribution of the Parameterized Orographic Gravity Wave Drag in CMIP6 Models, In AGU Fall Meeting Abstracts (pp. A11G-03), AGU Fall Meeting, 12-16 December, Chicago, **2022**
3. Prochazkova Z, Kuse C, Kuchar A, **Pisoft** P, Sacha P: Isolating the Gravity Wave Imprint in Global and Local Datasets, In AGU Fall Meeting Abstracts (pp. A11G-04), AGU Fall Meeting, 12-16 December, Chicago, **2022**
4. Zajicek R, Sacha P, **Pisoft** P, Eichinger R, Kuchar A: Detailed Analysis of Transport in the Middle Atmosphere, In AGU Fall Meeting Abstracts (pp. A52Q-1231), AGU Fall Meeting, 12-16 December, Chicago, **2022**
5. Anel JA, **Pisoft** P, Sacha P, Polvani L, de la Torre L, Eichinger R, Doelsche U, Huszar P, Jacobi C, Karlicky J, Kuchar A, Miksovsky J, Zak M, Rieder H: An update on the contraction of the stratosphere caused by increasing carbon dioxide, SPARC 2022 General Assembly, 24-28. 10., Boulder, USA · Reading, UK · Qingdao, China, **2022**
6. Karami K, Eichinger R, Jacobi C, Kuchar A, Mehrdad S, **Pisoft** P, Sacha P: The climatology of the elevated stratopause events in UA-ICON and the contribution of gravity waves, SPARC 2022 General Assembly, 24-28. 10., Boulder, USA · Reading, UK · Qingdao, China, **2022**
7. Prochazkova Z, Kuchar A, **Pisoft** P, Sacha P: Comparison of various methods for gravity wave drag estimation from high-resolution model simulations, SPARC 2022 General Assembly, 24-28. 10., Boulder, USA · Reading, UK · Qingdao, China, **2022**
8. Hajkova D, Sacha P, Eichinger R, **Pisoft** P: Analyzing differences of orographic gravity wave parameterization schemes in CMIP6 models, SPARC 2022 General Assembly, 24-28. 10., Boulder, USA · Reading, UK · Qingdao, China, **2022**
9. Zajicek R, Eichinger R, Kuchar A, **Pisoft** P, Sacha P, Rieder H: Not only is the Brewer-Dobson circulation increasing and moving upward, SPARC 2022 General Assembly, 24-28. 10., Boulder, USA · Reading, UK · Qingdao, China, **2022**
10. Sacha P, Zajicek R, Eichinger R, Pisoft P, Reider H: Drivers of variability and trend of advective transport in the middle atmosphere, 44th COSPAR Scientific Assembly. Held 16-24 July, 2022
11. Zajicek R, Sacha P, **Pisoft** P: Advective transport in the middle atmosphere-trends and drivers, 11th International Workshop on Long-Term Changes and Trends in the Atmosphere, 30 May - 3 June, **2022**, Helsinki, Finland
12. Anel JA, **Pisoft** P, Sacha P, Kuchar A, de la Torre L: Stratospheric contraction caused by the greenhouse gases emissions, XXXVIII Biennial of Physics of the Spanish Royal Physics Society (R.S.E.F.), Murcia, 11-15 July **2022**
13. Prochazkova, Z., Kruse, C., Kuchar, A., **Pisoft**, P., and Sacha, P.: Detection of internal gravity waves by high-pass filtering, EGU General Assembly 2022, Vienna, Austria, 23-27 May 2022, EGU22-3884, <https://doi.org/10.5194/egusphere-egu22-3884>, **2022**
14. Miksovsky, J., Brazdil, R., Dobrovolny, P., **Pisoft**, P., Trnka, M., Mozny, M., and Balek, J.: Temporal variability in central European climate reconstructions, 1501-2020 CE, and its attribution, EGU General Assembly 2022, Vienna, Austria, 23-27 May 2022, EGU22-4140, <https://doi.org/10.5194/egusphere-egu22-4140>, **2022**
15. Prochazkova Z, Kuse C, Kuchar A, Pisoft P, Sacha P: Internal gravity wave detection in high-resolution model data, SPARC GW Symposium 2022 -Frankfurt am Main28 March - 1 April 2022
16. Hajkova D, Sacha P, **Pisoft** P, Eichinger R: Parameterized orographic gravity wave drag in CMIP6 models, distribution, variability, trends and intermodel spread, SPARC GW Symposium 2022 -Frankfurt am Main28 March - 1 April **2022**
17. Kuchar A, Sacha P, Eichinger R, Rieder H, **Pisoft** P, Jacobi C: On the impact of the Himalayas on the polar vortex morphology, SPARC GW Symposium 2022 -Frankfurt am Main28 March - 1 April **2022**
18. Karami K, Borchert S, Eichinger R, Jacobi C, Koehler R, **Pisoft** P, Sacha P: Assessing the impact of gravity waves on the stratospheric polar vortex by means of ICON model simulations, SPARC GW Symposium 2022 - Frankfurt am Main28 March - 1 April **2022**
19. Karami, K., Borchert, S., Eichinger, R., Jacobi, C., Kuchar, A., Mehrdad, S., **Pisoft**, P., and Sacha, P.: Sensitivity of the middle and upper atmospheric dynamics to the modification of the gravity wave drag parameterization in ICON model, DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-91, <https://doi.org/10.5194/dach2022-91>, **2022**

20. Prochazkova, Z., Kruse, C., Kuchar, A., **Pisoft**, P., and Sacha, P.: Internal gravity wave detection in high-resolution model data, DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-90, <https://doi.org/10.5194/dach2022-90>, **2022**.
21. Zajicek, R., **Pisoft**, P., Eichinger, R., and Sacha, P.: Stratosphere-Mesosphere exchange: Long term changes and drivers, DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-39, <https://doi.org/10.5194/dach2022-39>, **2022**.
22. Sacha, P., Kuchar, A., Jacobi, C., **Pisoft**, P., Eichinger, R., and Rieder, H.: Analysis of interaction between parameterized orographic gravity wave drag and resolved dynamics in CMAM., DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-36, <https://doi.org/10.5194/dach2022-36>, **2022**
23. Eichinger, R., Diallo, M., Iglesias-Suarez, F., and **Pisoft**, P.: Stratospheric circulation trends in ERA5 reanalysis compared to climate models over 1960-2020, DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-29, <https://doi.org/10.5194/dach2022-29>, **2022**
24. Hajkova, D., Sacha, P., **Pisoft**, P., and Eichinger, R.: Parameterized orographic gravity wave drag in CMIP6 models, distribution, variability, trends and intermodel spread, DACH2022, Leipzig, Deutschland, 21-25 Mar 2022, DACH2022-20, <https://doi.org/10.5194/dach2022-20>, **2022**
25. Sacha, P., Kuchar, A., Eichinger, R., **Pisoft**, P., Jacobi, C., & Rieder, H. (**2021**). Diversity of responses to parameterized orographic gravity wave drag hotspots in a chemistry-climate model.. In AGU Fall Meeting Abstracts (pp. A15M-1824), AGU Fall Meeting, 13-17 December, New Orleans, 2021
26. **Pisoft**, P., Zajicek, R., Sacha, P., & Eichinger, R. (**2021**). Trends in the stratosphere/mesosphere exchange. In AGU Fall Meeting Abstracts (pp. A55T-1699), AGU Fall Meeting, 13-17 December, New Orleans, 2021
27. Eichinger, R., Sacha, P., Kuchar, A., **Pisoft**, P., and Garny, H. (**2021**): Enhanced wind variability in the orographic gravity wave parameterisation and its influence on dynamics, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-2133, <https://doi.org/10.5194/egusphere-egu21-2133>, 2021
28. Sacha, P., Kuchar, A., Eichinger, R., **Pisoft**, P., Jacobi, C., and Rieder, H. (**2021**): Diverse dynamical response to orographic gravity wave drag hotspots - a zonal mean perspective, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-234, <https://doi.org/10.5194/egusphere-egu21-234>, 2021
29. Z Prochazkova, P Sacha , A Kuchar, P **Pisoft** and C Kruse (**2020**): Sensitivity of resolved gravity wave momentum fluxes on different background separation methods in a high resolution simulation., *EGU General Assembly 2020*, Viena, 4-8 May 2020, <https://doi.org/10.5194/egusphere-egu2020-4997>
30. H Rieder, P Sacha , R. Eichinger, A Kuchar, N. Samtleben, P **Pisoft** and C Jacobi (**2020**): A different perspective on how parameterized orographic gravity waves influence atmospheric transport and dynamics in current generation global climate models, *EGU General Assembly 2020*, Viena, 4-8 May 2020, <https://doi.org/10.5194/egusphere-egu2020-4171>
31. P Sacha , P **Pisoft** (**2020**): A new method for the detection of incompressible turbulence as a deviation from the hydrostatic balance assumption, *EGU General Assembly 2020*, Viena, 4-8 May 2020, <https://doi.org/10.5194/egusphere-egu2020-4987>
32. P **Pisoft**, P Sacha (**2020**): Influence of the stratospheric shrinkage on the detected CCM1 simulation trends, *EGU General Assembly 2020*, Viena, 4-8 May 2020, <https://doi.org/10.5194/egusphere-egu2020-13468>
33. P **Pisoft**, P Sacha, P Huszar, A Kuchar, M Zak, J Miksovsky, J Karlicky, HE Rieder JA Anel (**2019**): Stratospheric Shrinkage Trends by CCM1 Simulations, AGU Fall meeting, San Francisco, Abstract A51R-2660, 9-13 December 2019
34. A Kuchar, P Sacha, and P **Pisoft** (**2019**): Parametrized gravity waves in the (lower) stratosphere, proceedings of IUGG 2019, Montral, 2019
35. P. **Pisoft**, P. Sacha, R. Eichinger, A. Kuchar, H. Rieder, J. Anel, P. Huszar and J. Miksovsky (**2019**): Intermodel comparison of the vertical shift of pressure levels in the stratosphere (shrinkage), proceedings of IUGG 2019, Montreal, 2019
36. **Pisoft** P., Atmospheric Physics and the Gravity Waves Studies at the Charles University in Prague, Wegener Center für Klima und Globalen Wandel workshop, Graz, **2019**, invited lecture
37. A Kuchar, P Sacha, and P **Pisoft** (**2019**): Role of parametrized orographic gravity waves in the lower stratosphere, In: *Geophysical Research Abstracts*, 2019, 21, pp. 14920
38. P Sacha, R Eichinger, P **Pisoft**, L de la Torre, and J Anel (**2019**): Brewer-Dobson circulation trend, stratospheric shrinkage and wave driving in climate projections, In: *Geophysical Research Abstracts*, 2019, 21, pp. 4957
39. N Samtleben, C Jacobi, P Sacha, Petr **Pisoft**, and Ales Kuchar (**2019**): Effect of local stratospheric gravity wave forcing on the circulation of the middle atmosphere, In: *Geophysical Research Abstracts*, 2019, 21, pp. 18191

40. P **Pisoft**, N Samtleben, P Sacha, A Kuchar, C Jacobi, F Lilenthal and J Miksovsky (**2018**): Localized Gravity Wave Forcing in the Lower Stratosphere - Influence of the Hotspot Position, AGU Fall meeting, Washington DC, USA, 10-14 December 2018
41. P **Pisoft**, N Samtleben, P Sacha, A Kuchar, C Jacobi, F Lilenthal and J Miksovsky (**2018**): Localized Gravity Wave Forcing in the Lower Stratosphere - Role of the East Asian and North Pacific Hotspot, SPARC General Assembly, Kyoto, Japan, 1-5 October 2018
42. P. **Pisoft**, Sacha P, Anel J, de la Torre L, Eichinger R, Garny L and Dietmuller S (**2018**): Changing Spatial Structure of the Brewer-Dobson Circulation in CCMI Simulations Is There a Role for the Wave Driving?, SPARC General Assembly, Kyoto, Japan, 1-5 October 2018
43. P **Pisoft**, N Samtleben, P Sacha, A Kuchar, C Jacobi, F Lilenthal and J Miksovsky (**2018**): Middle atmosphere effects of localized gravity wave forcing (MATELO) - new simulations and results, COSPAR 2018, Pasadena, California, USA, July 14-22, 2018
44. P Sacha, P **Pisoft**, N Samtleben, A Kuchar, C Jacobi, F Lilenthal and J Miksovsky (**2018**): Exploring limits of the Downward Control principle, COSPAR 2018, Pasadena, California, USA, July 14-22, 2018
45. P Sacha, P **Pisoft**, J Anel, L Torre, R Eichinger, S Dietmuller and H Garny (**2018**): Changing spatial structure of the Brewer-Dobson circulation in CCMI simulations - competing role of wave driving, COSPAR 2018, Pasadena, California, USA, July 14-22, 2018
46. A Kuchar, P Sacha, P **Pisoft** (**2018**): Composite analysis of orographic GW hotspots' behavior and the possible link with SSW, SCOSTEP 14th Quadrennial Solar-Terrestrial Physics Symposium, Toronto, Canada, 9 – 13 Jul, 2018
47. P Sacha, J Anel, L Torre, Eichinger R, and P **Pisoft** (**2018**): Structure of the Brewer-Dobson circulation change in CCMI and relationship with changes in the wave forcing, In: *Geophysical Research Abstracts*, 2018, 20, pp. 16449-16449
48. P **Pisoft**, A Kuchar, P Sacha (**2017**): Localized gravity forcing: high and low GW activity events, IAGA WGIIC and SCOSTEP workshop, Prague, Czech Republic, 13.-16. 11. 2017
49. A Kuchar, P **Pisoft** (**2017**): On the aliasing of the solar cycle in the stratosphere, IAGA WGIIC and SCOSTEP workshop, Prague, Czech Republic, 13.-16. 11. 2017
50. A Kuchar, EV Rozanov, WT Ball, P **Pisoft** (**2017**): Comparison of the observed solar signal with the specified dynamics CCMI experiments covering the satellite era from 1980-2010, HEPPA working group meeting, Paris, France, 6.-8. 11. 2017
51. P **Pisoft**, J Miksovsky, P Sacha, A Kuchar (**2017**): Coupling of the gravity wave activity, climate phenomena and middle atmospheric dynamics, Joint IAPSO-IAMAS-IAGA Assembly, Cape Town, South Africa, 27. 8.-1. 9. 2017
52. P Sacha, J Anel, L Torre, P **Pisoft**, A Kuchar (**2017**): On the longitudinal variability of the mean age of stratospheric air and the polar vortex preconditioning, In: *Geophysical Research Abstracts*, 2017, 19, pp. 1378-1378
53. P Sacha, P **Pisoft**, A Kuchar, F Lilenthal, C Jacobi, J Miksovsky (**2017**): New Perspective on the Role of Gravity Waves in the Stratospheric Dynamics and Variability, In: *Geophysical Research Abstracts*, 2017, 19, pp. 1373-1373
54. J Miksovsky, P Sacha, A Kuchar, P **Pisoft** (**2017**): Temporal variability of gravity wave drag - vertical coupling and possible climate links, In: *Geophysical Research Abstracts*, 2017, 19, pp. 14999-14999
55. Sacha P, Lilenthal F, Kuchar A., Miksovsky J., Jacobi C., **Pisoft** P. (**2016**): Spatiotemporal variability of the GW drag in the stratosphere - new perspectives for the middle atmospheric research, WCRP/SPARC workshop: "Challenges for Climate Science - Synergies between SPARC and the WCRP Grand Challenges", Berlin, Germany, 31. 10. - 1. 11., 2016
56. **Pisoft** P, Climate zones shift in the changing climate, "Drought identification and alert" workshop, Tunis, **2016, invited keynote lecture**
57. A. Kuchar, W. Ball, P. Sacha, E. Rozanov, J. Stahelin, F. Tummon, A. K. Smith, T. Sukhodolov, A. Stenke, L. Revell, A. Coulon, W. Schmutz, P. **Pisoft**, T. Peter (**2016**): MLSD index for attribution of stratospheric variability and improved ozone and temperature trend analysis – dynamics discussion, SPARC International Symposium on the Whole Atmosphere (ISWA), Tokio, Japan, 14-16. 9., 2016
58. A Kuchar, E Rozanov, W Ball, A Stenke, L Revell, P **Pisoft**, T Peter (**2016**): Attribution of lower-stratospheric tropical temperature variations to the 11-year solar cycle, 6th International HEPPA-SOLARIS Workshop, Helsinki, Finland, 13-17. 6., 2016
59. Sacha P, Lilenthal F, **Pisoft** P, Jacobi C. (**2016**): Influence of spatial distribution of the gravity wave activity on the middle atmospheric circulation and transport, SPARC DynVar Workshop & S-RIP Meeting, Helsinki,

- Finland, 6-10. 6., 2016
60. Sacha P, Lilenthal F, **Pisoft** P, Jacobi C. **(2016)**: Influence of spatial distribution of the gravity wave activity on the middle atmospheric circulation and transport, SPARC workshop Stratospheric Change and its Role in Climate Prediction (SHARP), Berlin, Germany, 16-19. 2., 2016
61. Lilenthal F, Sacha P, Jacobi C, **Pisoft** P. **(2016)**: The Influence of Locally Increased Gravity Wave Drag on the Middle Atmosphere Circulation – A Model Study, In: *Geophysical Research Abstracts*, 2016, 18, pp. 7853-7853
- 62.** **Pisoft** P, Sacha P, Lilenthal F, Jacobi C. **(2015)**: Model Study of IGW Hotspot Implications for the Middle Atmospheric Dynamics and Transport, *AGU Fall Meet. Suppl.*, San Francisco, Abstract SA13A-2336
63. Miksovsky J, and **Pisoft** P **(2015)**: Statistical attribution of temporal variability in global gridded temperature data, *AGU Fall Meet. Suppl.*, San Francisco, Abstract GC23C-1159
64. Sacha P, **Pisoft** P, Kuchar A, Lilenthal F, Jacobi C. **(2015)**: Localized Internal Gravity Waves Breaking Region and its Implications for Middle Atmospheric Circulation and Stratosphere-Troposphere Exchange, In: *Geophysical Research Abstracts*, 2015, 17, pp. 5190-5190
65. Sacha P, **Pisoft** P, Kuchar A, Lilenthal F, Jacobi C. **(2015)**: Internal Gravity Wave Activity Hotspot and Implications for the Middle Atmospheric Dynamics, proceedings of ESA - Advances in Atmospheric Science and Applications, Crete, 2015
66. Sacha P, **Pisoft** P, Kuchar A. **(2015)**: Localized IGW breaking region and its implications for middle atmospheric circulation, proceedings of IUGG 2015, Prague, 2015
- 67.** **Pisoft** P, Sacha P, Kuchar A. **(2015)**: Global climatology of the wind vector rotation - implications for the orographic gravity waves propagation, In: *Geophysical Research Abstracts*, 2015, 17, pp. 5172-5172
68. Kuchar A, and **Pisoft** P **(2014)**: Solar Cycle Variability in New Merge Satellite Ozone Datasets, *AGU Fall Meet. Suppl.*, San Francisco, Abstract SA53A-4105
69. Sacha P, and **Pisoft** P **(2014)**: Analysis of Internal Gravity Waves Using GPS RO Density Profiles, *AGU Fall Meet. Suppl.*, San Francisco, Abstract A23K-3393
- 70.** **Pisoft** P, Sacha P. **(2014)**: Stratosphere over the Northern Pacific / Eastern Asia region: anomalies of the annual cycle and analysis of the gravity waves activity, In: *Geophysical Research Abstracts*, 2014, 16, pp. 11121-11121
71. Miksovsky J, and **Pisoft** P **(2014)**: Global patterns of temperature response to climate forcings and internal climate oscillations, In: *Geophysical Research Abstracts*, 2014, 16, pp. 3626-3626
- 72.** **Pisoft** P, Kuchar A. **(2014)**: Large scale circulation in connection with the solar cycle forcing, *EMS14/ECAM12 Abstracts*, 11, 14th Annual Meeting of the EMS/10th ECAC, Prague 2014
- 73.** **Pisoft** P, Kuchar A. **(2013)**: Solar cycle in MERRA series: attribution and frequency analysis, *EMS13/ECAM11 Abstracts*, 10, 13th Annual Meeting of the EMS/11th ECAM, Reading 2013
74. Miksovsky J, Brazdil R, Stepanek P, and **Pisoft** P **(2013)**: Long-term variability in Czech temperature series: An attribution analysis, *EMS13/ECAM11 Abstracts*, 10, 13th Annual Meeting of the EMS/11th ECAM, Reading 2013
75. Miksovsky J, Brazdil R, Stepanek P, and **Pisoft** P **(2013)**: Imprint of the climate forcings in the long-term Czech temperature and precipitation series, In: *Geophysical Research Abstracts*, 2013, 15, pp. 3138-3138
- 76.** **Pisoft** P, Miksovsky J. **(2012)**: QBO and SSC Reanalyzed Anomalies in the Ozone Field, *AGU Fall Meet. Suppl.*, San Francisco, Abstract A11J-0178
- 77.** **Pisoft** P. **(2012)**: Circulation variations due to combine effect of the QBO and SSC: a reanalyses comparison, *EMS12/ECAC9 Abstracts*, 9, 12th Annual Meeting of the EMS/9th ECAC, Lodz 2012
78. Brazdil R, Zahradnick P, **Pisoft** P, Stepanek P, Belinova M, and Dobrovolny P **(2012)**: Temperature and precipitation fluctuations in the Czech Republic during the period of instrumental measurements, In: *Geophysical Research Abstracts*, 2012, 14, pp. 89-89
- 79.** **Pisoft** P, Simek J. **(2011)**: Detailed cluster analysis of (E-OBS 4.0) European precipitation series, *EMS11/ECAM8 Abstracts*, 8, 11th Annual Meeting of the EMS/8th ECAM, Berlin 2011
- 80.** **Pisoft** P, Holtanova, E., Kalvova, J., Miksovsky J. **(2011)**: Global study of the quasi-biennial oscillation by the pseudo- 2D wavelet transform, In: *Geophysical Research Abstracts*, 2011, 13, pp. 7697-7697
- 81.** **Pisoft**, P. **(2010)**: Cluster analysis of temperature trends during the 20th century in the 20C3M experiments of the ENSEMBLE project, *EMS10/ECAC8 Abstracts*, 7, 10th Annual Meeting of the EMS/8th ECAC, Zurich 2010
- 82.** **Pisoft**, P., Miksovsky J. **(2010)**: METEO in the TALNET project after 5 years - meteorology for talented high

- schools students, *EMS10/ECAC8 Abstracts*, 7, 10th Annual Meeting of the EMS/8th ECAC, Zurich 2010
83. J. Kalvova, E. Holtanova, L. Crhova, J. Miksovsky, P. **Pisoft**, and M. Motl (**2010**): Assessment of the future climate change in the Czech Republic based on ALADIN-CLIMATE/CZ and AR4 models, *EMS10/ECAC8 Abstracts*, 7, 10th Annual Meeting of the EMS/8th ECAC, Zurich 2010
84. **Pisoft**, P. (**2009**): Spatial distribution of distinct oscillations in temperature fields of different GCMs used in the ENSAMBLES project, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract A13I-0370
85. **Pisoft**, P. (**2009**): 11-years cycle in reanalyzed datasets: a comparison of spatial frequency patterns detected in NCEP/NCAR and ERA-40 temperature series, In: *Geophysical Research Abstracts*, 2009, 11, pp. 12003-12003
86. **Pisoft**, P. (**2008**): Sunspot cycle global patterns? - a study of spatio-temporal distribution of 11-years cycle, *EMS8/ECAC7 Abstracts*, 5, 8th Annual Meeting of the EMS/7th ECAC, Amsterdam
87. **Pisoft**, P. (**2008**): Spatial distribution and temporal evolution of distinct periodicities detected in NAO index, In: *Geophysical Research Abstracts*, 2008, 10, pp. 03583- 03583.
88. Kalvova J., Farda A., Miksovsky J., **Pisoft** P., Raidl A. (**2008**): Temperature and precipitation characteristics of ALADIN model versus climate conditions of the Czech Republic, In: *Geophysical Research Abstracts*, 2008, 10, pp. 03842- 03842.
89. **Pisoft**, P., Kalvova, J. (**2007**): Evolution profiles of annual cycle in global temperature fields during last 50 years, In: *Geophysical Research Abstracts*, 2007, 9, pp. 05440- 05440.
90. **Pisoft**, P., Kalvova, J. (**2006**): Cluster Analysis and Pseudo-2D Wavelet Transform of NCEP/NCAR Reanalysis Datasets: Trends in Global Temperature Fields, In: *Geophysical Research Abstracts*, 2006, 8, pp. 07522-07522.
91. **Pisoft**, P., Kalvova, J. (**2005**): "2D" Wavelet Transform of NCEP/NCAR Reanalysis Datasets: First Steps in Discovering Worldwide Frequency Patterns, In: *Geophysical Research Abstracts*, 2005, 7, pp. 05020-05020.
92. **Pisoft**, P., Kalvova, J. (**2004**): Qualitative Analysis of Climate Variability During Past Centuries Across the Europe and the Wavelet Transform of Secular Meteorological Series, Solar and North Atlantic Oscillation Index Series, In: *Geophysical Research Abstracts*, 2004, 6, pp. 05861-05861.
93. **Pisoft**, P., Kalvova, J. (**2003**): Climate Cycles and Their Variations Through the Czech Temperature Series Wavelet Transform, In: *Geophysical Research Abstracts*, 2003, pp. 05614-05614.
94. **Pisoft**, P., Kalvova, J. (**2002**): Wavelet Analysis of the Czech Temperature Series, Proceed. of the Fourth European Conference on Applied Climatology, November 12-15, 2002.
95. Nemecek, Z., J. Safrankova, G. N. Zastenker, and P. **Pisoft**: (**2000**): Radial profile of the magnetosheath ion flux, Proceed. of International Symposium, From Solar Corona Through Interplanetary Space, into Earth's Magnetosphere and Ionosphere: Interball, ISTP Satellites, and Ground based Observations, February 1-4, 2000, Kyiv, Ukraine
96. Nemecek, Z., J. Safrankova, G. N. Zastenker, and P. **Pisoft**: (**2000**): Statistics of the ion flux in the flank magnetosheath, I, *Geophys. Res. Abstracts*, 2, 2000, pp. 944.
97. Nemecek, Z., J. Safrankova, G. Zastenker, P. **Pisoft**, K. I. Paularena, and J. D. Richardson (**2000**): The Dawn - Dusk Assymmetry of the Magnetosheath, *EOS, Transactions*, AGU 2000 Spring Meeting, 81, No.19, Suppl., 2000, S388.