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CURRENT RESEARCH INTEREST

- greenhouse gas (CO_2, CH_4, H_2O) exchange between terrestrial ecosystems and the atmosphere – under natural and climate manipulated conditions
- carbon and GHG balances of natural ecosystems,
- ecosystem responses to climate change,
- climate manipulation experiments (currently I am the PI of 2 experiments on peatland),
- remote sensing of peatlands,
- spectral/optical properties and Sun Induced Fluorescence of canopies ->remote sensing of environment, linking of remote sensing and GHG fluxes,
- agrometeorology, agrophysics,
- weather and climate extremes.

Current projects

- ***ReVersal*** *- Restoring peatlands of the nemoral zone under conditions of varying water supply and quality*. Project funded by National Science Centre of Poland (NCN) No. 2021/03/Y/ST10/00093 BiodivRestore (**2022-2025**). **Project contractor, member of the consortium.**
- *Impact of heatwaves and droughts, water table fluctuations and nutrient availability on sun-induced fluorescence (SIF), photosynthesis, spectral and biophysical parameters of peatland vegetation across the water table depth and nutrient gradients*. Project funded by National Science Centre of Poland (NCN) 2020/39/O/ST10/00775 PRELUDIUM BIS (**2021-2025**) **PROJECT PI;**
- *Assessment of the impact of warming and drier conditions on photosynthetic efficiency, productivity, spectral characteristics and morphology of peatland vegetation under the controlled in-situ conditions of climate manipulation experiment.* Project funded by National Science Centre of Poland (NCN) No. 2020/37/B/ST10/0121 (**2021-2025**) **Project contractor;**

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PAST INTERNATIONAL PROJECTS

1) **2018-2019; POLIMOS;** *Technical Assistance for a Polish Radar and Lidar Mobile Observation System.* European Space Agency; ESA; RFP/3-14619/16/NL/FF/mg **R. Juszczak- contractor**
2) **2013-2017;** *„Central European Wetland Ecosystem Feedbacks to Changing Climate – Field Scale Manipulation"*, WETMAN, No. POL-NOR/203258/31/2013, funded by Polish National Centre for Research and Development within the Polish-Norwegian Research Programme; **R. Juszczak - Project PI**
3) **2014-2017;** Subcontractor in the European Space Agency founded project: FLEX-EU *Technical Assistance for the Deployment of an advanced hyperspectral imaging sensor during FLEX-EU ESA Contract No. 4000107143/12/NL/FF/lf* (responsibility: chamber measurements of CO_2 fluxes)
4) **2015;** SWAMP Harrier by EUFAR-Meteo France; 2015/02/CE; *Sprectrometry of a wetland and modelling of photosynthesis: hyperspectral airborne reflectance and fluorescence In education and research* (summer school and airborne campaign) R. **Juszczak - Project PI**
5) **2010-2013**; International project supported Polish participation in the COST Action EUROSPEC ES0903, No. 752/1/N-COST-2 010-0 *„Assessment of the temporal and spatial variation of the biophysical and spectral indices (NDVI, PRI, WBI) in reference to net exchange of CO_2, CH_4, H_2O between different ecosystems (peatland, forest and arable) and the atmosphere".* **R. Juszczak - Project PI**
6) **2010-2013;** International project supported Polish participation in the COST Action ABBA ES0804; No. 628/N-COST/2009/0 *„Assessment of the accuracy of the turbulent and energy fluxes measurements in eddy covariance method in Rzecin peatland*"; **R. Juszczak - contractor,**
7) **2011-2015**; FP7-INGOS, INFRASTRUCTURES-2011-1 "*Integrated non-CO_2 Greenhouse gas Observation System",* Contract No 284274; **R. Juszczak - contractor**
8) 2010-2013 FP7-GHG Europe "*Greenhouse gas management in European land use systems*" Contract No. 244122; **R. Juszczak - contractor**
9) **2007-2009**; FP6-ADAGIO-SSA, *''Adaptation of agriculture in European regions at environmental risk under climate change*"; SSPE-CT-2006-044210; **R. Juszczak - contractor**
10) 2006-2011 FP6-NITROEUROPE-IP: ''*The nitrogen cycle and its influence on the European greenhouse gas balance''*. GOCE-CT-2006-017841; R. Juszczak - contractor
11) **2006-2010;** FP6-GREENFLUX-TOK: ''*Micrometeorological techniques for in situ measurements of greenhouse gases exchange*''; MTKD-CT-2006-042445; **R. Juszczak - contractor** (PULS Poznań, TUM Germany, ZALF Germany, UH Finland),
12) **2005;** FP6-AGRIDEMA-SSA, (2005-2007) ''*Modeling tools and agricultural decision-making''*. SSPE-CT-2005-003944, Subcontractor, coauthor of the Pilot Assessment: *Modeling of crop yields in the present and future climatic conditions in Wielkopolska Region (Poland) with and without irrigation management practices;* within the AGRIDEMA project, **R. Juszczak - contractor**
13) **2000-2003;** Project of bilateral cooperation coordinated by Cornell University (USA) "*Environmental Management of Rural Landscape in Central Europe*", **R. Juszczak - contractor**
14) **2004-2008;** FP6-CARBOEUROPE-IP: *"Assessment of the European Terrestrial Carbon Balance",* Contract No. GOCE-CT-2004-505572, **R. Juszczak - contractor**

PAST NATIONAL PROJECTS

1) *Sun Induced florescence (SIF) and photosynthesis of peatland vegetation response to stress caused by water deficits and increased temperature under conditions of climate manipulation experiment*. Project funded by National Science Centre of Poland (NCN) No. 2016/21/B/ST10/02271 OPUS_11 (**2016-2021**) **PROJECT PI;**
2) *Impact of increased temperature and reduced precipitation on methane emission (CH_4 ^{12}C and CH_4-^{13}C) from peatland under conditions of climate manipulation experiment.* Project funded by National Science Centre of Poland (NCN) No.2017/25/N/ST10/02212 PRELUDIUM_13 (**2017-2022**) **Project contractor;**
3) **2011-2017;** GDLP; *Estimation of net carbon dioxide fluxes exchanged between the forest ecosystem on agricultural land and the atmosphere using spectroscopic and numerical measurement methods.* Research project commissioned by the General Directorate of State Forests. Contract No. OR-2717/27/11. **R. Juszczak – contractor**
4) **2008-2011;** GDLP; *Estimation of net carbon dioxide fluxes exchanged between the forest ecosystem and the atmosphere*. Research project commissioned by the General Directorate of State Forests. Contract No. 5/07. **R. Juszczak – contractor**
5) **2007-2009;** MNiSW; *Adaptation of agriculture in vulnerable European regions.* Research project commissioned by Ministry of Science and Higher Education. Contract No. 225/6. PR UE/2007/7. **R. Juszczak – contractor**

6) **2006-2011;** MNiSW; *The nitrogen cycle in the environment and its impact on the balance of greenhouse gases in Europe.* NitroEurope-IP; Research project commissioned by Ministry of Science and Higher Education Contract No 15/6.PRUE/2007/7**. R. Juszczak - contractor**
7) **2006-2010;** MNiSW; *Micrometeorological techniques for measuring greenhouse gas fluxes in situ*. GREENFLUX-TOK; Research project commissioned by Ministry of Science and Higher Education. Contract No 16/6.PRUE/2007/7. **R. Juszczak - contractor**
8) **2004-2008;** MNiSW,; *Assessment of terrestrial carbon balance in Europe.* CARBOEUROPE-IP; Research project commissioned by Ministry of Science and Higher Education. Contract No. 102/E-380/SPB/6.PR **R. Juszczak - contractor**
9) **2001-2003;** KBN; *The intensity and seasonal dynamics of the evapotranspiration process depending on the structure of agricultural land use.* Research project commissioned by Scientific Research Committee of Poland. Contract No. 6P06H05820. **R. Juszczak – contractor.**
10) **2003-2006;** KBN; *Applications of digital weather forecasts for the construction of local agrometeorological forecasts and assessment of the quality of their applications in the agrometeorological protection of agriculture.* Research project commissioned by Scientific Research Committee of Poland. Contract No. 3P06R01325 **R. Juszczak - contractor** R.J. – Main author of the agrometeorological decision support system for farmers in Wielkopolska Region - WISIA www.agrometeo.pl (2004-2010)
11) **2003-2004;** KBN, (Grant for PhD students); *Inventory and valorisation of in-field water reservoirs in the western part of the Wyskoć catchment.* Research project commissioned by Scientific Research Committee of Poland. Contract No. 0810/P06/2003/24. **R. Juszczak - contractor**

MEMBER OF COST ACTIONS:

2018- SENSECO (CA17134) *Optical synergies for spatiotemporal sensing of scalable ecophysiological traits.*
2014-2018 OPTIMISE (ES1903) *Innovative optical Tools for proximal sensing of ecophysiological processes* (STSM and Training coordinator since 2015)
2014-2018 Climmani (ES1308) *Climate Change Manipulation Experiments in Terrestrial Ecosystems - Networking and Outreach*
2010-2013 EUROSPEC (ES0903) *Spectral sampling tools for vegetation Biophysical Parameters and Flux measurements in Europe*.

PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS WITH IF

1. Antala M., **Juszczak R**., van der Tol Ch., Rastogi A., (2022). Impact of climate change-induced alterations in peatland vegetation phenology and composition on carbon balance. **Science of The Total Environment**, 827, 154294 https://doi.org/10.1016/j.scitotenv.2022.154294
2. Lembrechts, J. J., van den Hoogen, J., Aalto, J., Ashcroft, M. B., De Frenne, P., Kemppinen, J., Kopecký, M., Luoto, M., Maclean, I. M. D., Crowther, T. W., Bailey, J. J., Haesen, S., Klinges, D. H., Niittynen, P., Scheffers, B. R., Van Meerbeek, K., Aartsma, P., Abdalaze, O., Abedi, M., ⋯ Lenoir, J. (2022). *Global maps of soil temperature*. **Global Change Biology**, 00, 1‐35. https://doi.org/10.1111/gcb.16060
3. Bandopadhyay S., Rastogi A., Cogliati S., Rascher U., Gabka M., **Juszczak R**. 2021. *Can Vegetation Indices Serve as Proxies for Potential Sun-Induced Fluorescence (SIF)? A Fuzzy Simulation Approach on Airborne Imaging Spectroscopy Data*. **Remote Sensing**. 13, 2545. https://doi.org/10.3390/rs13132545
4. Harenda K., Samson M., **Juszczak R.,** Markowicz K.M., Stachlewska I.S., Kleniewska M., MacArthur A., Schüttemeyer D., Chojnicki B.H. (2021) *Impact of atmospheric optical properties on net ecosystem productivity of peatland in Poland.* **Remote Sensing**. 13, 2124. https://doi.org/10.3390/rs13112124
5. Górecki K., Rastogi A., Stróżecki M., Gąbka M., Lamentowicz M., Łuców D., Kayzer D, **Juszczak R.** (2021) *Water table depth, experimental warming, and reduced precipitation impact on litter decomposition in a temperate Sphagnum-peatland.* **Science of the Total Environment**, 771, 145452 https://doi.org/10.1016/j.scitotenv.2021.145452
6. Wang S., Zhang Y., Ju W., Porcar-Castel A., Ye S., Zhang Z., Brümmer Ch., Urbaniak M., Mammarella I., **Juszczak R.** Boersma F. (2020) *Warmer spring alleviated the impacts of 2018 European summer heatwave and drought on vegetation photosynthesis*. **Agriculture and Forest Meteorology**, 295, 108195 https://doi.org/10.1016/j.agrformet.2020.108195
7. Rastogi A., Antala M., Gąbka M., Rosadziński S., Stróżecki M., Brestic M., **Juszczak R.** (**2020**) Impact of warming and reduced precipitation on growth and chlorophyll concentration in peat mosses (Sphagnum angustifolium and S. fallax): A case study from short-term field experiment. **Scientific Reports** 10, 8592, https://doi.org/10.1038/s41598-020-65032-x
8. Flechard C.R., Ibrom A., Skiba U.M., de Vries W., van Oijen M., Cameron D.R., Dise N.B., Korhonen JFJ., Buchmann N., Legout A., Simpson D., Sanz M.J., Aubinet M., Loustau D., Montagnani L., Neirynck J., Janssens I.A., Pihlatie M., Kiese R., Siemens J., Francez A.-J., Augustin J., Varlagin A., Olejnik J., **Juszczak R.**, Aurela M., Chojnicki B.H., Dämmgen U., Djuricic V., Drewer J., Eugster W., Fauvel Y., Fowler D., Frumau A., Granier A., Gross P., Hamon Y., Helfter C., Hensen A., Horváth L., Kitzler B., Kruijt B., Kutsch W.L., Lobo-do-Vale R., Lohila A., Longdoz B., Marek M.V., Matteucci G.,

Mitosinkova M., Moreaux V., Neftel A., Ourcival J-M., Pilegaard K., Pita G., Sanz F., Schjoerring J.K., Sebastià M.T., Tang S.Y., Uggerud H., Urbaniak M., van Dijk N., Vesala T., Vidic S., Vincke K., Weidinger T., Zechmeister-Boltenstern S., Butterbach-Bahl K., Nemitz E., and Sutton M. (**2020**) *Carbon/nitrogen interactions in European forests and semi-natural vegetation. Part I: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling*. **BIOGEOSCIENCES**, 17(6), 1583-1620 https://doi.org/10.5194/bg-2019-333.

9. Flechard, C.R., van Oijen M., Cameron D.R., de Vries W., Ibrom A., Buchmann N., Dise N.B, Janssens I.A., Neirynck J., Montagnani L., Varlagin A., Loustau D., Legout A., Ziemblińska K., Aubinet M., Aurela M., Chojnicki B.H., Drewer J., Eugster W., Francez A.-J., **Juszczak R.**, Kitzler B., Kutsch W.L., Lohila A., Longdoz B., Matteucci G., Moreaux V., Neftel A., Olejnik J., Sanz M.J., Siemens J., Vesala T., Vincke C., Nemitz E., Zechmeister-Boltenstern S., Butterbach-Bahl K., Skiba U.M., and Sutton M. (**2020**) *Carbon/nitrogen interactions in European forests and semi-natural vegetation. Part II: Untangling climatic, edaphic, management and nitrogen deposition effects on carbon sequestration potentials.* **BIOGEOSCIENCES**, 17(6), 1621-1654 https://doi.org/10.5194/bg-2019-335
10. Pinto, F., Celesti, M., Rossini, M., Schickling, A., Colombo, R., **Juszczak, R.**, Miglietta, F., Rascher, U., Sakowska, C., Stróżecki, M., Rademske, P., Schuettemeyer, D., Matveeva, M., Pignatti, S., Palombo, A., Burkart, A., Cillia, C., Damm, A**.** (**2020**) *Dynamics of sun-induced chlorophyll fluorescence and reflectance to detect variations in photosynthetic efficiency: an applied case study* using ground and airborne data. **Plant Cell and Environment**, 43(7), 1637-1654 https://doi.org/10.1111/pce.13754
11. Bandopadhyay, S.; Rastogi, A.; **Juszczak, R.** (**2020**). *Review of Top-of-Canopy Sun-Induced Fluorescence (SIF) Studies from Ground, UAV, Airborne to Spaceborne Observations*. **Sensors**, 20, 1144.
12. Basińska A.M., Reczuga M.K., Gąbka M., Stróżecki M., Łuców D., Samson M., Urbaniak M., Leśny J., Chojnicki B., Gilbert D., Olejnik J., Silvennoinen H., **Juszczak, R.,** Lamentowicz M. (**2020**). *Experimental warming and precipitation reduction affect the biomass of microbial communities in a Sphagnum peatland*. **Ecological Indicators**, 112, 106059.
13. Shang Z., Zhou F., Smith P., Saikawa E., Ciais P., Chang J., Tian H., Del Grosso S.J., Ito A., Chen M., Wang Q., Yan B., Cui X., Castaldi S., **Juszczak R**., Kasimir Å., Magliulo V., Medinets S., Medinets V., Rees R.M., Wohlfahrt G., Sabbatini S. (**2019**). *Weakened growth of cropland N2O emissions in China associated with nationwide policy interventions.* **Global Change Biology** DOI: 10.1111/gcb.14741
14. Rastogi A., Stróżecki M., Kalaji H., Łuców D., Lamentowicz M., **Juszczak R** (**2019**). *Impact of warming and reduced precipitation on photosynthetic and remote sensing properties of peatland vegetation*. **Environmental and Experimental Botany**, 160; 71-80
15. Bandopadhyay S., Rastogi A., Rascher U., Rademske P. Schickling A., Cogliati S., Julitta T., Mac Arthur A., Hueni A., Tomelleri E., Celesti M., Burkart A., Stróżecki M., Sakowska K., Gąka M., Rosadziński S., Sojka M., Iordache M.-D., Reusen I., Van Der Tol Ch., Damm A., Schuettemeyer R., **Juszczak R**. (**2019**) *HyPlant-Derived Sun-Induced Fluorescence—A New Opportunity to Disentangle Complex Vegetation Signals from Diverse Vegetation Types*. **Remote Sensing**, 11, 1691.
16. **Juszczak R**, Uździcka B, Stróżecki M, Sakowska K. (**2018**) *Improving remote estimation of winter crops gross ecosystem production by inclusion of leaf area index in a spectral model*. **PeerJ** 6:e5613 https://doi.org/10.7717/peerj.5613
17. Gerhards M, Schlerf M, Rascher U., Udelhoven T, **Juszczak R,** Alberti G, Miglietta F, Inoue Y. (**2018**) *Analysis of airborne optical and thermal hyperspectral imagery for detection of water stress Symptom*s. **Remote Sensing**, 2018, *10*(7), 1139; https://doi.org/10.3390/rs10071139
18. Sakowska K., Alberti G., Genesio L., Peressotti A., Vedove DG., Gianelle D., Colombo R., Rodeghiero F., Panigada C., **Juszczak R.,** Celesti M, Rossini M, Haworth M, Campbell B.W., Mevy J.P., Vescovo L., Cendrero-Mateo, M., Rascher U., Miglietta F. (**2018**). *Leaf and canopy photosynthesis of a chlorophyll deficient soybean mutant.* **Plant Cell and Environment;** 41(6): 1427-1437 DOI:10.1111/pce.13180
19. Acosta M., **Juszczak R.,** Chojnicki B., Pavelka M., Havránková K, Lesny J., Krupková L., Urbaniak M., Machačová K., Olejnik J. (**2017**). *CO_2 fluxes from different vegetation communities on a peatland ecosystem*. **Wetlands**, 37(3); 423-435
20. Uździcka B., Stróżecki, M., Urbaniak M., **Juszczak R**. (**2017**) *Dependence of spectral characteristics on parameters describing CO_2 exchange between crop species and the atmosphere*. **International Agrophysics**, 31, 419-432,
21. Sakowska K., **Juszczak R**., Gianelle D., (**2016**). *Remote sensing of grassland biophysical parameters in the context of the Sentinel 2 satellite missio*n. **Journal of Sensors**, 2016, Article ID 4612809, 16 pages, http://dx.doi.org/10.1155/2016/4612809
22. Sakowska K., Vescovo L., Marcolla B., **Juszczak R.,** Olejnik J., Giannelle D. (**2014**) *Monitoring of carbon dioxide fluxes in a subalpine grassland ecosystem of the Italian Alps using a multispectral sensor.* **BIOGEOSCIENCES**, 11, 4695-4712
23. **Juszczak R.** (**2013**) *Biases in methane chamber measurements in peatlands*. **International Agrophysics**, 27, 159-168. DOI: 10.2478/v10247-012-0081-z
24. **Juszczak R.,** Augustin J. (**2013**). *Exchange of the greenhouse gases methane and nitrous oxide at a temperate pristine fen mire in Central Europe*. **Wetlands**, 33(5); 895-907
25. **Juszczak R.,** Humphreys E., Acosta M., Michalak-Galczewska M., Kayzer D., Olejnik J. (**2013**) *Ecosystem respiration in a heterogeneous temperate peatland and its sensitivity to peat temperature and water table depth*. **Plant and Soil**, 366 (1-2), 505-520.
26. **Juszczak R.**, Kuchar L., Leśny J., Olejnik J. (**2013**). *Climate change impact on development rates of the Codling Moth (Cydia pomonella L.) in the Wielkopolska region, Poland.* **International Journal of Biometeorology**, 57(1), 31-44. DOI 10.1007/s00484-012-0531-0

27. Acosta M., Pavelka M., Tomaškova I., Montagnani L., Kutsch W., Lindroth A., **Juszczak R.**, Janouš D. (**2013**). *Soil surface CO_2 efflux measurements In Norway spruce Forests: Comparison between four sites across Europe – from boreal to Alpine forest*. **Geoderma**, 192, 295-303.

28. Pihlatie M., Christiansen J.R., Aaltonen H., Korhonen J., Nordbo A., Rasilo T., Benanti G., Giebels M., Helmy M., Hirvensalo J., Jones S., **Juszczak R.**, Klefoth R., Lobo do R. Vale, Rosa A. P., Schreiber P., Serça D., Vicca S., Wolf B., Pumpanen J. (2013). *Comparison of static chambers to measure CH_4 emissions from soils*. **Agriculture and Forest Meteorology,** 171-172, 124-136

29. Rees R.M., Augustin J., Alberti G., Ball B.C., Boeckx P., Cantarel A., Castaldi S., Chirinda N., Chojnicki B., Giebels M., Gordon H., Grosz B., Horvath L., **Juszczak R.,** Kasimir Klemedtsson Å., Klemedtsson L., Medinets S., Machon A., Mapanda F., Nyamangara J., Olesen J.E., Reay D.S., Sanchez L., Sanz Cobena A., Smith K.A., Sowerby A., Sommer M., Soussana J.F., Stenberg M., Topp C.F.E., van Cleemput O., Vallejo A., Watson C.A., Wuta M. (**2013**). *Nitrous oxide emissions from European agriculture – an analysis of variability and drivers of emissions from field experiments*, **BIOGEOSCIENCES**, 10, 2671-2682. DOI:10.5194/bg-10-2671-2013, 2013.

30. Kowalska N, Chojnicki BH, Rinne J, Haapanala S, Siedlecki P, Urbaniak M, **Juszczak R**, Olejnik J (**2013**). *Measurements of methane emission from a temperate wetland by the eddy covariance method.* **International Agrophysics** 27, 283-289.

31. Mądrawski J., Ziemblińska K., **Juszczak R**., Zawal D., Olejnik J. (**2013**). *Traditional and alternative methods of assessment of carbon dioxide sequestration process by recycled concrete aggregates* (In Polish). **Annual Set The Environment Protection**, 15, 2526-2545 (ISBN 1506-218X).

32. Nyćkowiak J., Leśny J., **Juszczak R.**, Olejnik J. Blecharczyk A., Haas E., Kiese R., Butterbach-Bahl K (**2013**). *Application of LandscapeDNDC model for simulating soil water content and crop yield quantity* (in Polish**). Annual Set The Environment Protection**, 15, 1937-1951 (ISBN 1506-218X)

33. Kowalska N., Chojnicki B.H., Józefczyk D., Urbaniak M., **Juszczak R.**, Olejnik J. (**2013**) *An attempt to evaluate the productivity of ecosystems under field conditions of Wielkopolska (*in Polish). **Annual Set The Environment Protection**), 15, 2481-2495 (ISBN 1506-218X).

34. Ziemblińska K., Urbaniak M., Danielewska A., Baran M., **Juszczak R**., Chojnicki B., Olejnik J (**2013**) *Seasonal Water Use Efficiency (WUE) index course in pine forest* (In Polish). **Annual Set The Environment Protection**, 15, 2481-2495 (ISBN 1506-218X).

35. **Juszczak R.**, Acosta M., Olejnik J. (2012). *Comparison of daytime and nighttime ecosystem respiration measured by the closed chamber technique on a temperate mire in Poland*. **Polish Journal of Environmental Studies**, 21, 643–658.

36. Bell M.J., Jones E., Smith J., Smith P., Yeluripati J., Augustin J., **Juszczak R.**, Olejnik J., Sommer M. (2012). *Simulation of soil nitrogen, nitrous oxide emissions and mitigation scenarios at 3 European cropland sites using the ECOSSE model*. **Nutrient Cycling in Agroecosystems**, 92, 161-181. DOI 10.1007/s10705-011-9479-4

37. Balzarolo M., Anderson K., Nichol C., Rossini M., Vescovo L., Arriga N., Calvet J.-Ch., Carrara A., Salvatori S.C., Cogliati S., Eklundh L., Elbers J.A., Evrendilek F., Handcock R., Klumpp K., Longdoz B., Matteucci G., Meroni M., Moya I., Montagnani L., Ourcival J.-M., Pontailler J.-Y., **Juszczak R.,** Scholes R.J., Wohlfahrt G., Martín M.P. (**2011**). *Ground-based optical measurements at European flux sites: a review of methods, instruments and current controversies*. **Sensors,** *11*, 7954-7981, DOI:10.3390/s11087954

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39. Chojnicki B.H, Michalak M., Acosta M., **Juszczak R.**, Augustin J., Droesler M., Olejnik J. (2010). *Measurements of carbon dioxide fluxes by chamber method at the Rzecin wetland ecosystem, Poland*. **Polish Journal of Environmental** Studies, 19(2), 283-291.

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42. **Juszczak R.**, Kędziora A. (**2003**). *Threats and deterioration of small water reservoir located within Wyskoć catchment*. **Polish Journal of Environmental Studies**, 12(5), 567-573.

Reviewer

- Journals*: Soil, Biology and Biogeochemistry; Biogeosciences; Agriculture and Forest Meteorology; Ecological Indicators; Plant and Soil; Remote Sensing; Sensors; Forests; Pure and Applied Geophysics; Catena; International Journal of Biometeorology; Ecological Engineering; Environmental Sciences and Pollution Research; International Agrophysics; Pedosphere; Wetlands; Arctic Science; Polish Journal of Environmental Science; Journal of Water and Land Development; Acta Agrophysica; Meteorology Hydrology and Water Management*

- Funding agencies*: National Science Centre of Poland, National Centre for Research and Development, Austrian Climate and Energy Fund, Belgian Research Action through Interdisciplinary Networks*