PERSONAL DETAILS

Name	Akpona Emanuel Okujeni
Date & place of birth	06.12.1981, Berlin, Germany
Nationality	German
Postal address	Humboldt-Universität zu Berlin, Geography Department, Unter den Linden 6, D-10099 Berlin, Germany
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Phone	+49 (0)30 2093 6894

ABOUT ME

I am a geographer by training with a strong background in remote sensing. I received my Diplom (MSc equivalent) and PhD degree from the Humboldt-Universität zu Berlin, Germany, in 2009 and 2014, respectively. Currently, I am working as a postdoctoral researcher at the Geomatics Lab, Geography Department, Humboldt-Universität zu Berlin. My research focuses on utilizing and developing remote sensing techniques assess land systems under global change. To do so, I exploit high-spectral and dense-temporal optical images with machine learning algorithms to quantify land cover properties as well as environmental change processes across natural environments and urban areas. I have more than 5 years of experience in teaching GIS and remote sensing at universities and workshops as well as in guiding BSc, MSc and PhD students. I am contributing to the implementation of user-friendly applications in the EnMAP-Box (an open source plug-in for QGIS) and to the development of educational tutorials for online learning and teaching.

ACADEMIC EMPLOYMENT & APPOINTMENTS

11/2014 - present — ***Postdoctoral researcher***
Geomatics Lab, Geography Department, Humboldt-Universität zu Berlin, Germany
- Project research and project coordination in the field of remote sensing of natural environments and in urban remote sensing
- Teaching in the field of GIS and remote sensing
- Supervision of PhD, Master and Bachelor students

11/2012 - 12/2012 — ***Visiting scholar***
Lamont-Doherty Earth Observatory, Columbia University, New York, USA.
Mentor: Prof. Dr. C. Small. Funding: DAAD fellowship

05/2009 - 11/2014 — ***Doctoral researcher***
Geomatics Lab, Geography Department, Humboldt-Universität zu Berlin, Germany
- Project research in the field of urban remote sensing
- Teaching in the field of GIS and remote sensing

04/2009 - 05/2009 — ***Research assistant***
Geomatics Lab, Geography Department, Humboldt-Universität zu Berlin, Germany
- Development of a handbook and tutorial for the EnMAP-Box

05/2007 - 08/2007 — ***Research intern***
Umvoto Africa (Pty), Cape Town, South Africa
- Involvement in different GIS and remote sensing projects

- Fieldwork (groundwater monitoring)

2006 - 2008 ***Student research assistant***
Humboldt-Universität zu Berlin

EDUCATION

11/2009 - 11/2014 ***PhD in Geography***
Humboldt-Universität zu Berlin, Germany
- Thesis: *Quantifying urban land cover by means of machine learning and imaging spectrometer data at multiple spatial scales*
- Advisors: Prof. Dr. P. Hostert, Dr. S. van der Linden. Committee: Prof. Dr. P. Hostert, Prof. Dr. B. Somers, Prof. Dr. B. Waske
- Final grade: magna cum laude (very good)

04/2004 - 05/2009 ***Diplom (MSc equivalent) in Geography with minors in Geo-informatics and Geology***
Humboldt-Universität zu Berlin, Germany
- Thesis: *Spatial analysis of solar-induced chlorophyll fluorescence using hyperspectral remote sensing*
- Advisors: Dr. S. van der Linden, Prof. Dr. A. Damm. Committee: Prof. P. Hostert, Prof. Dr. U. Rascher
- Final Diplom grade: 1.2 (very good)

10/2002 - 03/2004 ***Studies in Geography, Geology, Computer Sciences, and English***
Albert-Ludwigs-Universität Freiburg, Germany

1992 - 2001 ***General qualification for university entrance (Abitur)***
Faust-Gymnasium Staufen, Germany
- Final grade: 2.5 (good)

INVOLVEMENT IN RESEARCH PROJECTS

Monitoring gradual land cover change in South Africa's Greater Cape Floristic Region using remote sensing (submitted proposal)
- Project on advancing change monitoring assessments in natural ecosystems with combined Landsat/Sentinel-2 time-series
- Principle investigator: Dr. A. Okujeni; Proposal submitted to the DAAD PRIME program
- Role: Independent proposal development for collaboration with Prof. Dr. Res Altwegg, Centre for Statistics in Ecology, the Environment and Conservation, University of Cape Town

Monitoring vegetation under global change (01/2017 - 05/2020)
- EnMAP Core Science Team project as part of the pre-launch activities of the forthcoming hyperspectral satellite mission EnMAP
- Principle investigator: Prof. Dr. P. Hostert; Funding agency: BMWi/DLR
- Role: Contribution to proposal development; coordination of project; scientific research

Urban Ecosystem Analysis supported by Remote Sensing (01/2015 - 12/2016)
- Project on exploring state-of-the-art remote sensing technologies for urban environmental assessment
- Principle investigator: Prof. Dr. B. Somers, Dr. S. van der Linden; Funding agency: BELSPO
- Role: Contribution to proposal development; scientific research

Urban environmental monitoring with high resolution remote sensing data (05/2009 - 10/2012)
- Project on hyperspectral remote sensing of urban areas
- Principle investigator: Prof. Dr. P. Hostert; Funding agency: DFG
- Role: Scientific research

EnMAP-Box software development (since 2009)
- Development of a free and open source toolbox to process imaging spectroscopy data and particularly to handle data from the upcoming EnMAP sensor
- Principle investigator: Prof. Dr. P. Hostert, Dr. S, van der Linden; Funding agency: BMWi/DLR
- Role: Contributions to the conceptual design & documentation; development of processing algorithms & educational tutorials

TEACHING & SUPERVISION

University courses
- *Introduction to Geographic Information Systems* (full seminar at the bachelor's level, 2013, 2014, 2015, 2016, 2019)
- *Introduction into Statistics, Cartography and Geographic Information Systems* (full seminar for teacher education at the bachelor's level, 2013, 2014)
- *Introduction into Remote Sensing* (full seminar at the bachelor's level, 2016)
- Modeling climate and hydrological data (full seminar & excursion at the bachelor's level 2013, 2014, 2015)
- *Introduction in laboratory and field spectrometry* (seminar session at the bachelor's and master's level, since 2013)
- *Quantitative Methods in Geography* (assignment & supervision of remote sensing-based student projects at the master's level, since 2014)
- Sessions on *spectral unmixing* and *urban remote sensing* (seminar session at the master's level, sporadically since 2015)

Tutorials
- *Working with the EnMAP-Box* (lecture & tutorial, 70 min), Sonoma State University, Rohnert Park, USA, 04/2019
- *Regression-based unmixing of urban land cover using the EnMAP-Box* (lecture & tutorial, 90 min), EnMAP Workshop, Humboldt-Universität zu Berlin, Germany, 03/2019
- *Regression-based unmixing of urban land cover using the EnMAP-Box* (lecture & tutorial, 180 min), EARSeL SIG Imaging Spectroscopy Workshop, Brno, Czech Republic, 02/2019
- *Working with the EnMAP-Box* (lecture & live demonstration, 90 min), KU Leuven, Belgium, 10/2017
- *Machine learning algorithms using the EnMAP-Box* (tutorial, 90 min), EnMAP Workshop, Ludwig-Maximilians-Universität München, Germany, 09/2017

Invited seminar talks
- *Spaceborne imaging spectrometry and machine learning for quantitative urban mapping*, Vrije Universiteit Brussel, Belgium, 11/2016
- *Mapping urban areas from space*, Forum GI, Universität Osnabrück, Germany, 11/2015

Supervision & appraisal of theses
- PhD: S. Cooper (co-supervision, since 06/2017)
- MSc: C. Jaenicke (supervision, since 05/2019)
- BSc: F. Thiel (supervision & appraisal, 2016), C. Jaenicke (supervision & appraisal, 2016), J. Hoffmann (supervision & appraisal, 2015)

INTERNATIONAL EXPERIENCE

- Visiting scholar at the Columbia University, New York, USA (11/2012-12/2012)
- Research intern at Umvoto Africa (Pty), Cape Town, South Africa (05/2007-08/2007)
- Attendance at the German School Cape Town, South Africa (10/1998-11/1998)

FELLOWSHIPS & AWARDS

- Fellowship by the German Academic Exchange Service (DAAD) for research stay at the Columbia University, New York, USA
- Award as a recognized reviewer, Remote Sensing of Environment, 2014
- Award as an outstanding reviewer, Ore Geology Reviews, 2018

SCIENTIFIC SERVICES

Reviewer for

GIScience & Remote Sensing**,** IEEE Geoscience and Remote Sensing Letters, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Transactions on Geoscience and Remote Sensing, International Journal of Remote Sensing, Remote Sensing Letters, ISPRS Journal of Photogrammetry and Remote Sensing, Journal of Applied Remote Sensing, Journal of Land Use Science, Land Degradation & Development, Ore Geology Reviews, Remote Sensing, Remote Sensing Applications: Society and Environment, Remote Sensing of Environment, Science of the Total Environment

Conference session chair

- *Mapping, monitoring & modelling of Savannah vegetation characteristics*, ESA Living Planet Symposium, Milan, Italy, 2019
- *Data analyzing software, toolboxes*, EARSeL SIG Imaging Spectroscopy Workshop, Brno, Czech Republic, 2019
- *Towards universal mapping models*, EARSeL SIG Imaging Spectroscopy Workshop, Zurich, Switzerland, 2017
- *Sphere specific analysis methods - Urban*, EARSeL SIG Imaging Spectroscopy Workshop, Zurich, Switzerland, 2017

Institutional activities

- PhD committee membership: T. Leichtle (2019), Dr. M. Schwieder (2018), Dr. C. Levers (2016)

PERSONAL SKILLS

Languages

- German: mother tongue
- English: Understanding: C1, Speaking: C1, Writing: C1
- French: Understanding: A2, Speaking: A1, Writing: A1

  A1 and A2: Basic user, B1 and B2: Independent user, C1 and C2: Proficient user
  (Common European Framework of Reference for Languages)

Software & programming

- GIS software (QGIS, ArcGIS)
- Remote sensing software (ENVI, EnMAP-Box, Erdas Imagine)
- Basic skills in Python,

Communication

- Strong written and oral communication skills in German and English

Management & organization

- Experience with management of research projects and interaction with funding agencies
- Experience in designing university courses and tutorials

PUBLICATION LIST

Peer-review journal articles (under review)

[1] Cooper, S., **Okujeni, A.**, Jaenicke, C., Clark, M., van der Linden, S., & Hostert, P. (under review). Disentangling fractional vegetation cover: regression-based unmixing of simulated spaceborne imaging spectroscopy data. Remote Sensing of Environment.

[2] Schug, F., Frantz, D., **Okujeni, A.**, van der Linden, S., & Hostert, P. (under review). Mapping settlement and vegetation continuous fields at national scale using Sentinel-2. Remote Sensing of Environment.

[3] Senf, C., Lastovicka, J., **Okujeni, A.**, Heurich, M., & van der Linden, S. (under review). A generalized regression-based unmixing model for mapping forest cover fractions throughout three decades of Landsat data. Remote Sensing of Environment.

Peer-review journal articles (published, in chronological order)

[4] Jaenicke, C., **Okujeni, A.**, Cooper, S., Clark, M., van der Linden, S., & Hostert, P. (accepted). Brightness gradient-corrected hyperspectral image mosaics for fractional vegetation cover mapping in northern California. Remote Sensing Letters.

[5] Priem, F., **Okujeni, A.**, van der Linden, S., & Canters, F. (2019). Comparing map-based and library-based training approaches for urban land-cover fraction mapping from Sentinel-2 imagery. International Journal of Applied Earth Observation and Geoinformation, 78, 295-305. https://doi.org/10.1016/j.jag.2019.02.003

[6] van der Linden, S., **Okujeni, A.**, Canters, F., Degerickx, J., Heiden, U., Hostert, P., Priem, F., Somers, B., & Thiel, F. (2019). Imaging spectroscopy of urban environments. Surveys in Geophysics, 40, 471–488. https://doi.org/10.1007/s10712-018-9486-y

[7] **Okujeni, A.**, Canters, F., Cooper, S.D., Degerickx, J., Heiden, U., Hostert, P., Priem, F., Roberts, D.A., Somers, B., & van der Linden, S. (2018). Generalizing machine learning regression models using multi-site spectral libraries for mapping vegetation-impervious-soil fractions across multiple cities. Remote Sensing of Environment, 216, 482-496. https://doi.org/10.1016/j.rse.2018.07.011

[8] Schug, F., **Okujeni, A.**, Hauer, J., Hostert, P., Nielsen, J.Ø., & van der Linden, S. (2018). Mapping patterns of urban development in Ouagadougou, Burkina Faso, using machine learning regression modeling with bi-seasonal Landsat time series. Remote Sensing of Environment, 210, 217-228. https://doi.org/10.1016/j.rse.2018.03.022

[9] Suess, S., van der Linden, S., **Okujeni, A.**, Griffiths, P., Leitão, P.J., Schwieder, M., & Hostert, P. (2018). Characterizing 32 years of shrub cover dynamics in southern Portugal using annual Landsat composites and machine learning regression modeling. Remote Sensing of Environment, 219, 353-364. https://doi.org/10.1016/j.rse.2018.10.004

[10] Degerickx, J., **Okujeni, A.**, Iordache, M.-D., Hermy, M., van der Linden, S., & Somers, B. (2017). A novel spectral library pruning technique for spectral unmixing of urban land cover. Remote Sensing, 9, 565 (1-24). https://doi.org/10.3390/rs9060565

[11] **Okujeni, A.**, van der Linden, S., Suess, S., & Hostert, P. (2017). Ensemble learning from synthetically mixed training data for quantifying urban land cover with support vector

regression. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 10, 1640-1650. https://doi.org/10.1109/JSTARS.2016.2634859

[12] Rosentreter, J., Hagensieker, R., **Okujeni, A.**, Roscher, R., Wagner, P.D., & Waske, B. (2017). Subpixel mapping of urban areas using EnMAP data and multioutput support vector regression. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 10, 1938-1948. https://doi.org/10.1109/JSTARS.2017.2652726

[13] Verdonck, M.-L., **Okujeni, A.**, van der Linden, S., Demuzere, M., De Wulf, R., & Van Coillie, F. (2017). Influence of neighbourhood information on 'Local Climate Zone' mapping in heterogeneous cities. International Journal of Applied Earth Observation and Geoinformation, 62, 102-113. https://doi.org/10.1016/j.jag.2017.05.017

[14] **Okujeni, A.**, van der Linden, S., & Hostert, P. (2015). Extending the vegetation–impervious–soil model using simulated EnMAP data and machine learning. Remote Sensing of Environment, 158, 69-80. https://doi.org/10.1016/j.rse.2014.11.009

[15] Suess, S., van der Linden, S., **Okujeni, A.**, Leitão, P., Schwieder, M., & Hostert, P. (2015). Using class probabilities to map gradual transitions in shrub vegetation from simulated EnMAP data. Remote Sensing, 7, 10668-10688. https://doi.org/10.3390/rs70810668

[16] Leitão, P., Schwieder, M., Suess, S., **Okujeni, A.**, Galvão, L., van der Linden, S., & Hostert, P. (2015). Monitoring natural ecosystem and ecological gradients: Perspectives with EnMAP. Remote Sensing, 7, 13098-13119. https://doi.org/10.3390/rs71013098

[17] van der Linden, S., Rabe, A., Held, M., Jakimow, B., Leitão, P., **Okujeni, A.**, Schwieder, M., Suess, S., & Hostert, P. (2015). The EnMAP-Box - A toolbox and application programming interface for EnMAP data processing. Remote Sensing, 7, 11249-11266. https://doi.org/10.3390/rs70911249

[18] **Okujeni, A.**, van der Linden, S., Jakimow, B., Rabe, A., Verrelst, J., & Hostert, P. (2014). A comparison of advanced regression algorithms for quantifying urban land cover. Remote Sensing, 6, 6324-6346. https://doi.org/10.3390/rs6076324

[19] Suess, S., van der Linden, S., Leitão, P.J., **Okujeni, A.**, Waske, B., & Hostert, P. (2014). Import vector machines for quantitative analysis of hyperspectral data. IEEE Geoscience and Remote Sensing Letters, 11, 449-453. https://doi.org/10.1109/LGRS.2013.2265102

[20] **Okujeni, A.**, van der Linden, S., Tits, L., Somers, B., & Hostert, P. (2013). Support vector regression and synthetically mixed training data for quantifying urban land cover. Remote Sensing of Environment, 137, 184-197. https://doi.org/10.1016/j.rse.2013.06.007

[21] Rascher, U., Agati, G., Alonso, L., Cecchi, G., Champagne, S., Colombo, R., Damm, A., Daumard, F., de Miguel, E., Fernandez, G., Franch, B., Franke, J., Gerbig, C., Gioli, B., Gómez, J.A., Goulas, Y., Guanter, L., Gutiérrez-de-la-Cámara, Ó., Hamdi, K., Hostert, P., Jiménez, M., Kosvancova, M., Lognoli, D., Meroni, M., Miglietta, F., Moersch, A., Moreno, J., Moya, I., Neininger, B., **Okujeni, A.**, Ounis, A., Palombi, L., Raimondi, V., Schickling, A., Sobrino, J.A., Stellmes, M., Toci, G., Toscano, P., Udelhoven, T., van der Linden, S., & Zaldei, A. (2009). CEFLES2: the remote sensing component to quantify photosynthetic efficiency from the leaf to the region by measuring sun-induced fluorescence in the oxygen absorption bands. Biogeosciences, 6, 1181-1198. https://doi.org/10.5194/bg-6-1181-2009

Peer-review book chapters (in chronological order)

[22] Small, C., **Okujeni, A.**, van der Linden, S., & Waske, B. (2018). Remote sensing of urban environments. Comprehensive Remote Sensing - Reference Module in Earth Systems and Environmental Sciences. 96-127. Elsevier. Oxford. https://doi.org/10.1016/B978-0-12-409548-9.10380-X

[23] Rascher, U., Damm, A., van der Linden, S., **Okujeni, A.**, Pieruschka, R., Schickling, A., & Hostert, P. (2010). Sensing of photosynthetic activity of crops. Precision Crop Protection-the Challenge

and Use of Heterogeneity. 87-99. Springer Netherlands. https://doi.org/10.1007/978-90-481-9277-9

Scientific reports

[24] Berger, K., Buddenbaum, H., Chabrillat, S., Cooper, S., Danner, M., Doerffer, R., Dotzler, S., Förster, S., Guanter, L., Hank, T., Heiden, U., Heldens, W., Hieronymi, M., Hill, J., Hostert, P., Itzerott, S., Jakimow, B., Jilge, M., Kaufmann, H., Kleeberg, U., Krasemann, H., Küster, T., Leitão, P.J., van der Linden, S., Mauser, W., Mielke, C., Müller, A., **Okujeni, A.**, Ong, C., Rabe, A., Scheffler, D., Segl, K., Staenz, K., Suess, S., Wocher, M., Wulf, H. (2018). Environmental Mapping and Analysis Program - Preparing to Exploit the Science Potentials. Report. EnMAP Consortium.

Theses (in chronological order)

[25] **Okujeni, A.** (2016). Quantifying urban land cover by means of machine learning and imaging spectrometer data at multiple spatial scales. Geomatics Series, 10, ISSN 1868-2464, ISBN 978-3-86004-315-8. Doctoral thesis submitted to the Humboldt-Universität zu Berlin in 2014 and available under https://doi.org/10.18452/17082

[26] **Okujeni, A.** (2009). Spatial analysis of solar-induced chlorophyll fluorescence using hyperspectral remote sensing. Diplom thesis. unpublished.

Tutorials & datasets (in chronological order)

[27] **Okujeni, A.**, & van der Linden (2019). Regression-based unmixing of urban land cover. https://enmap-box.readthedocs.io/en/latest/usr_section/application_tutorials/tutorial_1.html

[28] **Okujeni, A.**, van der Linden, S., Hostert, P. (2016). Berlin-Urban-Gradient dataset 2009 - An EnMAP Preparatory Flight Campaign. Datasets. GFZ Data Services.

[29] **Okujeni, A.**, van der Linden, S., Hostert, P. (2016). Berlin-Urban-Gradient dataset 2009 - An EnMAP Preparatory Flight Campaign. Technical Report. GFZ Data Services.

Conference contributions (in chronological order)

[30] Cooper, S., **Okujeni, A.**, Jänicke, C., van der Linden, S., & Hostert, P. (2019). Quantitative vegetation mapping of California ecosystems using simulated EnMAP data. 11th EARSel SIG Imaging Spectroscopy Workshop. Brno, Czech Republic.

[31] Jakimow, B., Rabe, A., Thiel, F., **Okujeni, A.**, Cooper, S., Hostert, P., & van der Linden, S. (2019). EnMAP-Box -imaging spectroscopy data processing in QGIS. ESA Living Planet Symposium. Milan, Italy.

[32] Rabe, A., Jakimow, B., **Okujeni, A.**, Cooper, S., Thiel, F., Hostert, P., & van der Linden, S. (2019). EnMAP-Box 3. Free and open-source imaging spectroscopy data processing in QGIS. 11th EARSel SIG Imaging Spectroscopy Workshop. Brno, Czech Republic.

[33] **Okujeni, A.**, Cooper, S., Jänicke, C., Frantz, D., Hostert, P., & van der Linden, S. (2019). Landsat time-series and regression-based unmixing for fraction mapping of vegetation types across California's ecoregions. ESA Living Planet Symposium. Milan, Italy.

[34] Schug, F., Frantz, D., **Okujeni, A.**, van der Linden, S., & Hostert, P. (2019). Sentinel-2 and machine learning regression for built-up and urban green fraction mapping across European settlements. ESA Living Planet Symposium. Milan, Italy.

[35] Schug, F., Frantz, D., **Okujeni, A.**, van der Linden, S., & Hostert, P. (2019). Urban surface fraction mapping with optical remote sensing for material stock estimation. Global Land Programme Open Science Meeting. Bern, Switzerland.

[36] Schug, F., van der Linden, S., **Okujeni, A.**, & Hostert, P. (2019). Using time series information for mapping human settlements with Sentinel-2. DGPF Dreiländertagung. Vienna, Austria.

[37] Cooper, S., **Okujeni, A.**, Jänicke, C., van der Linden, S., & Hostert, P. (2018). Mapping vegetation cover fractions using brightness corrected hyperspectral image mosaics and machine learning regression. AGU Fall Meeting. Washington, D.C., USA.

[38] **Okujeni, A.**, Canters, F., Cooper, S.D., Degerickx, J., Heiden, U., Hostert, P., Priem, F., Roberts, D.A., Somers, B., & van der Linden, S. (2018). A generalized machine learning regression approach for mapping urban composition across multiple cities from simulated EnMAP data. ESA Mapping Urban Areas from Space 2018. Frascati, Italy.

[39] Schug, F., **Okujeni, A.**, Hauer, J., Hostert, P., Ostergaard, J.N., & van der Linden, S. (2018). Mapping patterns of urban development using support vector regression with synthetically mixed training spectra and bi-seasonal Landsat time series. 5th EARSeL Joint Workshop 2018. Bochum, Germany.

[40] Schug, F., van der Linden, S., **Okujeni, A.**, & Hostert, P. (2018). Evaluating Sentinel-2 imagery for mapping human settlements. ESA Mapping Urban Areas from Space 2018. Frascati, Italy.

[41] van der Linden, S., **Okujeni, A.**, Schug, F., Frantz, D., & Hostert, P. (2018). An evaluation of urban area mapping with Sentinel-2 data and machine learning-based regression at different spatial resolutions. 5th EARSeL Joint Workshop 2018. Bochum, Germany.

[42] Hoffmann, J., **Okujeni, A.**, & van der Linden, S. (2017). Assessing the potential of HyMap imaging spectroscopy data for urban tree classification. 10th EARSeL SIG Imaging Spectroscopy Workshop. Zurich, Switzerland.

[43] Jaenicke, C., **Okujeni, A.**, Clark, M., Hostert, P., & van der Linden, S. (2017). Quantifying vegetation composition in the San Francisco bay area using support vector regression models trained with synthetically mixed data and simulated HyspIRI data. 10th EARSeL SIG Imaging Spectroscopy Workshop. Zurich, Switzerland.

[44] **Okujeni, A.**, van der Linden, S., Priem, F., Canters, F., Degerickx, J., & Somers, B. (2017). Towards the development of universal SVR models for quantifying land cover across cities. 10th EARSeL SIG Imaging Spectroscopy Workshop. Zurich, Switzerland.

[45] Priem, F., Canters, F., **Okujeni, A.**, & van der Linden, S. (2017). Optimizing mixed spectra generation for regression-based unmixing of land cover in urban areas. Joint Urban Remote Sensing Event. Dubai, United Arab Emirates.

[46] Rabe, A., Jakimow, B., Held, M., **Okujeni, A.**, Leitão, P., Hostert, P., & van der Linden, S. (2017). EnMAP-Box 3.0 - concept for a QGIS-Python toolbox for imaging spectroscopy data processing. 10th EARSeL SIG Imaging Spectroscopy Workshop. Zurich, Switzerland.

[47] Verdonck, M.L., Coillie, F.V., Wulf, R.D., **Okujeni, A.**, van der Linden, S., Demuzere, M., & Hooyberghs, H. (2017). Thermal evaluation of the local climate zone scheme in Belgium. Joint Urban Remote Sensing Event. Dubai, United Arab Emirates.

[48] Degerickx, J., Iordache, M.-D., **Okujeni, A.**, Hermy, M., van der Linden, S., & Somers, B. (2016). Spectral unmixing of urban land cover using a generic library approach. SPIE Remote Sensing. Edinburgh, Scotland, United Kingdom.

[49] **Okujeni, A.**, van der Linden, S., & Hostert, P. (2016). Elucidating potentials and challenges of Sentinel-2 and EnMAP for mapping urban areas. ESA Living Planet Symposium. Prague, Czech Republic.

[50] Priem, F., **Okujeni, A.**, van der Linden, S., & Canters, F. (2016). Use of multispectral satellite imagery and hyperspectral endmember libraries for urban land cover mapping at the metropolitan scale. SPIE Remote Sensing. Edinburgh, Scotland, United Kingdom.

[51] Rosentreter, J., Hagensieker, R., **Okujeni, A.**, Roscher, R., Wagner, P.D., & Waske, B. (2016). Sub-pixel mapping of urban surfaces using EnMAP data and machine learning algorithm. ESA Living Planet Symposium. Prague, Czech Republic.

[52] Held, M., Rabe, A., Senf, C., **Okujeni, A.**, & van der Linden, S. (2015). decoupling feature redundancy reduction and feature ranking for hyperspectral data. 9th EARSeL SIG Imaging Spectroscopy Workshop. Luxembourg, Luxembourg.

[53] Leitão, P.J., Schwieder, M., **Okujeni, A.**, Rabe, A., van der Linden, S., & Hostert, P. (2015). Characterizing phenological profiles of the Brazilian Cerrado with time series of multispectral and hyperspectral satellite data. IEEE Geoscience and Remote Sensing Symposium. Milan, Italy.

[54] **Okujeni, A.**, van der Linden, S., & Hostert, P. (2015). On the use of extended vegetation-impervious-soil maps from simulated EnMAP data for characterizing urban functional areas. ESA Mapping Urban Areas from Space 2015. Frascati, Rome, Italy.

[55] **Okujeni, A.**, van der Linden, S., & Hostert, P. (2015). On the use of land cover fraction maps derived from simulated EnMAP data for characterizing urban morphology. 9th EARSeL SIG Imaging Spectroscopy Workshop. Luxembourg, Luxembourg.

[56] Schug, F., van der Linden, S., Østergaard Nielsen, J., & **Okujeni, A.** (2015). Multi-seasonal spectral mixture analysis using Landsat data for mapping urban land cover in Ouagadougou, Burkina Faso. IEEE Geoscience and Remote Sensing Symposium. Milan, Italy.

[57] Suess, S., van der Linden, S., **Okujeni, A.**, Leitão, P., Schwieder, M., & Hostert, P. (2015). Using class-probabilities to map gradual transitions in shrub vegetation from simulated EnMAP data. 9th EARSeL SIG Imaging Spectroscopy Workshop. Luxembourg, Luxembourg.

[58] van der Linden, S., Leitão, P.J., **Okujeni, A.**, Schwieder, M., Suess, S., & Hostert, P. (2015). Mapping ecosystem transitions with EnMAP data and machine learning algorithms. The 36th International Symposium on Remote Sensing of Environment. Berlin.

[59] van der Linden, S., Rabe, A., Held, M., Jakimow, B., Leitão, P.J., **Okujeni, A.**, Schwieder, M., Suess, S., & Hostert, P. (2015). EnMAP-Box 2.1 – an overview of the concept and available applications. 9th EARSeL SIG Imaging Spectroscopy Workshop. Luxembourg, Luxembourg.

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