

SCI-Journals

2020

- de los Reyes, R., Langheinrich, M., Schwind, P., Richter, R., Pflug, B., **Bachmann**, M., Müller, R., Carmona, E., Zekoll, V., Reinartz, P. (2020): PACO: Python-Based Atmospheric Correction. *Sensors*, 20 (5). DOI:10.3390/s20051428
- Xie, J., Jonas, T., Rixen, C., de Jong, R., Garonna, I., Notarnicola, C., **Asam**, S., Schaeppman, M. E., Kneubühler, M., (2020): Land surface phenology and greenness in Alpine grasslands driven by seasonal snow and meteorological factors, *Science of The Total Environment*, 725,138380, DOI:10.1016/j.scitotenv.2020.138380.
- **Thonfeld**, F.; Steinbach, S.; Muro, J.; Kirimi, F. (2020): Long-Term Land Use/Land Cover Change Assessment of the Kilombero Catchment in Tanzania Using Random Forest Classification and Robust Change Vector Analysis. *Remote Sens.*, 12(7), 1057. DOI:10.3390/rs12071057.
- Heinemann, S., Siegmann, B., **Thonfeld**, F., Muro, J., Jedmowski, C., Kemna, A., Kraska, T., Müller, O., Schultz, J., Udelhoven, T., Wilke, N., Rascher, U. (2020). Land Surface Temperature Retrieval for Agricultural Areas Using a Novel UAV Platform Equipped with a Thermal Infrared and Multispectral Sensor. *Remote Sensing* 12 (7), 1075. DOI:10.3390/rs12071075.

2019

- **Orynbaikyzy**, A., **Gessner**, U., Conrad, C. (2019): Crop type classification using a combination of optical and radar remote sensing data: A review. *International Journal of Remote Sensing*, 1–43. DOI:10.1080/01431161.2019.1569791.
- Rossi, M., Niedrist, G., **Asam**, S., Tonon, G., Tomelleri, E., Zebisch, M. (2019): A Comparison of the Signal from Diverse Optical Sensors for Monitoring Alpine Grassland Dynamics, *Remote Sensing*, 11(3), 296; DOI:10.3390/rs11030296
- **Da Ponte**, E., Sergi CA., Cristina VG., (2019): Lessons Learned from Arson Wildfire Incidence in reforestations and natural stands in Spain. *Forests*, 10(3), 229; DOI:10.3390/f10030229
- **Reinermann**, S., **Gessner**, U., **Asam**, S., Kuenzer, C., Dech, S. (2019): The Effect of Droughts on Vegetation Condition in Germany: An Analysis Based on Two Decades of Satellite Earth Observation Time Series and Crop Yield Statistics. *Remote Sensing*, 11, 1783. DOI:10.3390/rs11151783
- **Mayr**, S., Kuenzer, C., **Gessner**, U., **Klein**, I., Martin Rutzinger (2019): Validation of Earth Observation Time-series: A Review for Large-area and Temporally Dense Land Surface Products. *Remote Sensing*, 11(22), 2616; DOI:10.3390/rs11222616
- Bhagwat, B., **Klein**, I., Huth, J. and Leinenkugel, P. (2019) Volumetric Analysis of Reservoirs in Drought-Prone Areas Using Remote Sensing Products. *Remote Sensing* 11 (17). DOI:10.3390/rs11171974

- Näschen, K., Diekkrüger, B., Evers, M., Höllermann, B., Steinbach, S., **Thonfeld**, F. (2019): The Impact of Land Use/Land Cover Change (LULCC) on Water Resources in a Tropical Catchment in Tanzania under Different Climate Change Scenarios. *Sustainability* 11, 7083. DOI:10.3390/su11247083
- Schultz, J.A., Hartmann, M., Heinemann, S., Janke, J., Jürgens, S., Oertel, D., Rücker, G., **Thonfeld**, F., Rienow A. (2019): DIEGO: A Multispectral Thermal Mission for Earth Observation on the International Space Station. *European Journal of Remote Sensing* 1–11. DOI:10.1080/22797254.2019.1698318
- Storch, T., Reck, C., Holzwarth, S., Wieggers, B., Mandery, N., Raape, U., Strobl, C., Volkmann, R., Böttcher, M., **Hirner**, A., Senft, J., Plesia, N., Kukuk, T., Meissl, S., Felske, JR., Heege, T., Keuck, V., Schmidt, M., Staudenrausch, H. (2019): Insights into CODE-DE - Germany's Copernicus Data and Exploitation Platform. *Big Earth Data*, 3 (4), pp. 338-361. Taylor & Francis. DOI:10.1080/20964471.2019.1692297
- Palacios Lopez, D., Bachofer, F., Esch, T., Heldens, W., **Hirner**, A., Marconcini, M., Sorichetta, A., Zeidler, J., Kuenzer, C., Dech, S., Tatem, A., Reinartz, P. (2019): New Perspectives for Mapping Global Population Distribution Using World Settlement Footprint Products. *Sustainability*, 11 (21), pp. 1-24. DOI: 10.3390/su11216056
- Esch, T., Bachofer, F., and Heldens, W., **Hirner**, A., Marconcini, M., Palacios-Lopez, D., Roth, A., Üreyen, S., Zeidler, J., Dech, S., Gorelick, N., (2019): Where we live – A summary of the achievements and planned evolution of the Global Urban Footprint. In: *Ten Years of TerraSAR-X - Scientific Results*, 355-372.

2018

- Bliedernicht, J., Berger, S., Salak, S., Guug, S., Hingerl, L., Heinzeller, D., Mauder, M., Steinbrecher, R., Steup, G., Bossa, A., Waongo, M., Quansah, E., Balogun, A., Yira, Y., Arnault, J., Wagner, S., Klein, C., **Gessner**, U., Straub, A., **Knauer**, K., Schönrock, R., Kunkel, R., Rogmann, A., Neidl, F., Jahn, K., Diekkruieger, B., Aduna, A., Barry, B., Kunstmann, H. (2018): The WASCAL Hydro-Meteorological Observatory in the Sudan Savanna of Burkina Faso and Ghana. *Vadose Zone Journal* 17(1); DOI:10.2136/vzj2018.03.0065
- Faye, B., Webber, H., Naab, J., MacCarthy, D.S., Adam, M., Ewert, F., Lamers, J.P.A., Schleussner, C.F., Ruane, A., **Gessner**, U., Hoogenboom, G., Boote, K., Shelia, V., Saeed, F., Wisser, D., Hadir, S., Laux, P., Gaiser, T. (2018): Impacts of 1.5 versus 2.0°C on cereal yields in the West African Sudan Savanna" *Environmental Research Letters* 13, 034014.
- **Asam**, S., Callegari, M., Matiu, M., Fiore, G., De Gregorio, L., Jacob, A., Menzel, A., Zebisch, M., Notarnicola, C. (2018): Relationship between Spatiotemporal Variations of Climate, Snow Cover and Plant Phenology over the Alps—An Earth Observation-Based Analysis. *Remote Sensing*, 10, 1757. DOI:10.3390/rs10111757
- Misra, G., Buras, A., Heurich, M., **Asam**, S., Menzel, A. (2018): LiDAR derived topography and forest stand characteristics improve the understanding of the spatial variability observed in MODIS land surface phenology. *Remote Sensing of Environment* 218, 231-244, DOI:10.1016/j.rse.2018.09.027

- Esch, T., Bachofer, F., Heldens, W., Hirner, A., Marconcini, M., Palacios-Lopez, D., Roth, A., Üreyen, S., Zeidler, J., Dech, S., Gorelick, N. (2018): *Where we live – A summary of the achievements and planned evolution of the Global Urban Footprint*. Remote Sensing, 10 (6), 1-18. DOI:10.3390/rs10060895

2017

- **Da Ponte**, E., **Mack**, B., Wohlfart, C., Rodas, O., Fleckenstein, M., Oppelt, N., Dech, S., Kuenzer, C. (2017): Assessing Forest Cover Dynamics and Forest Perception in the Atlantic Forest of Paraguay, Combining Remote Sensing and Household Level Data. Forests, 8 (10), 1-21. DOI:10.3390/f8100389 ISSN 1999-4907
- **Winkler**, K., **Gessner**, U., Hochschild, V. (2017): Identifying Droughts Affecting Agriculture in Africa Based on Remote Sensing Time Series between 2000–2016: Rainfall Anomalies and Vegetation Condition in the Context of ENSO. Remote Sensing 9(8), 831. DOI:10.3390/rs9080831
- **Klein**, I., **Gessner**, U., Dietz, A.J., Kuenzer, C. (2017): Global WaterPack – A 250 m resolution dataset revealing the daily dynamics of inland water bodies. Remote Sensing of Environment 198, 345-362.
- Knauer, K., **Gessner**, U., Forkuor, G., Fensholt, R., Kuenzer, C. (2017): Monitoring Agricultural Expansion in Burkina Faso over 14 Years with 30 m Resolution Time Series: The Role of Population Growth and Implications for the Environment. Remote Sensing 9(2), 132, DOI:10.3390/rs9020132
- Dietz A.J., **Frey**, C.M., Ruppert, T., Bachmann, M., Kuenzer C., Dech, S. (2017): Automated Improvement of Geolocation Accuracy in AVHRR Data using a two-step Chip Matching Approach – a Part of the TIMELINE Preprocessor. Remote Sensing 9 (4), 303.
- Dietz, A., **Klein**, I., **Gessner**, U., **Frey**, C., Kuenzer, C., Dech, S. (2017): Detection of Water Bodies from AVHRR Data – a TIMELINE thematic Processor. Remote Sensing 9, 57, DOI:10.3390/rs9010057
- Eisfelder, C., **Klein**, I., Bekkulyeva, A., Kuenzer, C., Buchroithner, M. F., Dech, S. (2017) Above-ground biomass estimation based on NPP time-series - A novel approach for biomass estimation in semi-arid Kazakhstan. Ecological Indicators, 72, pp. 13-22.
- **Mack**, B., Leinenkugel, P., Kuenzer, C., Dech, S. (2017): A semi-automated approach for the generation of a new land use and land cover product for Germany based on Landsat time-series and Lucas in-situ data. Remote Sensing Letters, 8 (3), 244-253. DOI:10.1080/2150704X.2016.1249299
- **Da Ponte**, E., Roch, M., Leinenkugel, P., Dech, S., Kuenzer, C. (2017). Paraguay's Atlantic Forest cover loss - Satellite-based change detection and fragmentation analysis between 2003 and 2013. Applied Geography. 79, 37-49. DOI:10.1016/j.apgeog.2016.12.005
- **Da Ponte**, E., Kuenzer, C., Parker, A., Rodas, O., Oppelt, N.; Fleckenstein, M. (2017). Forest cover loss in Paraguay and perception of ecosystem services: A case study of the Upper Parana Forest. Ecosystem Service. 24, 200-212, DOI:10.1016/j.ecoser.2017.03.009

- Plank S., Fuchs E-M., **Frey** CM., (2017): A Fully Automatic Instantaneous Fire Hotspot Detection Processor Based on AVHRR Imagery—A TIMELINE Thematic Processor. *Remote Sensing*, 9(1), 30; DOI:10.3390/rs9010030
- **Frey**, CM., Kuenzer, C., Dech, S. (2017): Assessment of Mono- and Split-Window Approaches for Time Series Processing of LST from AVHRR—A TIMELINE Round Robin. *Remote Sensing*, 9(1), 72; DOI:10.3390/rs9010072

2016

- Klein, C., Bliedernicht, J., Heinzeller, D., **Gessner**, U., **Klein**, I., Kunstmann, H. (2016): Feedback of observed interannual vegetation change: a regional climate model analysis for the West African monsoon. *Climate Dynamics* 48 (9-10), 2837-2858.
- Knauer, K., **Gessner**, U., Fensholt, R., Kuenzer, C. (2016): An ESTARFM fusion framework for the generation of large-scale time series in cloud-prone and heterogeneous landscapes. *Remote Sensing* 8, 425.
- Waldner, F., Fritz, S., Di Gregorio, A., Plotnikov, D., Bartalev, S., Kassul, N., Gong, P., Thenkabail, P., Hazeu, G., **Klein**, I., Löw, F., Miettinen, J., Dadhwal, V., Lamarche, C., Bontemps, S., Defourny, P. (2016): A Unified Cropland Layer at 250 m for Global Agriculture Monitoring. *Data*, 1 (3), pp.1-13.

2015

- **Gessner**, U., Machwitz, M., Esch, T., Tillack, A., Naeimi, V., Kuenzer, C., Dech, S. (2015): Multi-sensor mapping of West African land cover using MODIS, ASAR and TanDEM-X/TerraSAR-X data. *Remote Sensing of Environment* 164, 282-297, DOI:10.1016/j.rse.2015.03.029
- Machwitz, M., **Gessner**, U., Conrad, C., Falk, U., Richters, J., Dech, S. (2015): Modelling the Gross Primary Productivity of West Africa with the Regional Biomass Model RBM+, using optimized 250 m MODIS FPAR and fractional vegetation cover information. *International Journal of Applied Earth Observation and Geoinformation* 43, 177-194, DOI:10.1016/j.jag.2015.04.007
- **Klein**, I., Dietz, A., **Gessner**, U., Dech, S., Kuenzer, C. (2015): Results of the Global WaterPack: a novel product to assess inland water body dynamics on a daily basis. *Remote Sensing Letters* 6 (1), 78-87.
- **Da Ponte**, E., Fleckenstein, M., Leinenkugel, P., Parker, A., Oppelt, N., Kuenzer, C. (2015): Tropical forest cover dynamics for Latin America using Earth observation data: a review covering the continental, regional, and local scale. *International Journal of Remote Sensing*, 36 (12), 3196-3242, DOI:10.1080/01431161.2015.1058539

Conferences

2020

- Schucknecht, A., Seo, B., Krämer, A., **Asam**, S., Mejia Aguilar A., Kiese, R. (2020): Estimation of grasslands traits with multispectral UAS data – a comparison of different sensors and models, 40. Wissenschaftlich-Technische Jahrestagung der Deutschen Gesellschaft für Photogrammetrie, Fernerkundung und Geoinformation, 4-6 March 2020, Stuttgart, Germany.
- König, S., Schultz, J., Dubovyk, O., **Thonfeld**, F. (2020): Assessment of Drought Effects on Forests using Non- Parametric Methods and Satellite Imagery, in: Publikationen der DGPF. Presented at the 40. Wissenschaftlich-Technische Jahrestagung der DGPF, 4-6 March 2020, Stuttgart, Germany.
- **Thonfeld**, F., (2020): Historical and Near-Real Time Forest Disturbance Detection Based on Satellite Time Series Data – Two Examples From Germany. DFD-LAX-Seminar, 11 February 2020, DLR Oberpfaffenhofen, Germany.
- **Thonfeld**, F., Steinbach, S., Muro, J., Kirimi, F., Näschen, K., Hentze, K., Strauch, A., (2020): The Kilombero Floodplain Wetland (Tanzania) between Food Production and Wildlife Conservation. Symposium 20 Jahre Fernerkundung in Jena, 07 February 2020, Jena, Germany.
- Wolfmüller, M., **Asam**, S., Kiemle, S. (2020): Optimized Data Access to a Long-term Archive for the Processing of EO Data Time Series, Ensuring Long-Term Preservation and Adding Value to Scientific and Technical Data - PV2020, 12th – 14th May 2020, CERN, Switzerland. (accepted)
- **Asam**, S., Schucknecht, A., Reinermann, S., Krämer, A., Atzberger, C., Kiese R. (2020): Remote Sensing within the SUSALPS Project – Characterizing Grassland Traits and Management Practices using Earth Observation Data, Nationales Forum für Fernerkundung und Copernicus 2020, 10.-12. March 2020, Berlin, Germany. (accepted)

2019

- **Asam**, S., **Da Ponte**, E., Köstl, T., Wuttej, D., Abbasov, S., Köppler, M. (2019) Mapping Grassland Extent and Degradation in Azerbaijan. ESA Living Planet Symposium 2019, 13. -17. May 2019, Milan, Italy.
- **Asam**, S., **Reiners**, P., Frey, C., Sobrino, J., Göttsche, F.J., Bendix, J., Künzer, C. (2019) Validation of the TIMELINE AVHRR Land Surface Temperature (LST) Product with MODIS and in situ LST. ESA Living Planet Symposium 2019, 13. -17. May 2019, Milan, Italy.
- Rossi, M., **Asam**, S., Niedrist, G., Verrelst, J., Zebisch, M. (2019) Detecting harvest events and estimating biomass production on alpine grasslands - A multisensor approach. ESA Living Planet Symposium 2019, 13. - 17. May 2019, Milan, Italy.
- Bachmann, M., **Asam**, S., Frey, C., Klein, I., Eisfelder, C., Plank, S.M., Klüser, L. (2019) "TIMELINE" - AVHRR Re-Processing. CEOS WGCV IVOS 31, Perth, Australia.
- **Reinermann**, S.; **Asam**, S.; **Gessner**, U.; Kuenzer, C.; Dech, S. (2019): Extreme Hot and Dry Summers in Germany - Analysis of Long-term Earth Observation Time Series of vegetation Condition. ESA Living Planet Symposium 2019, 13. - 17. May 2019, Milan, Italy.

- **Klein, I.**, Schwing, T., Grüber, T., Höxtermann, D., Gilberto, L. (2019) Locust-Tec Projekt. BMBF CLIENT-II Status Konferenz 2019, 17-18. September, Berlin, Germany.
- **Orynbaikyzy, A., Gessner, U., Mack B., Conrad, C.** (2019): An optimal combination of optical and radar features for a crop type classification. Living Planet Symposium 2019. 13. - 17. May 2019, Milan, Italy.
- **Orynbaikyzy, A., Gessner, U., Conrad, C.** (2019): Investigating Dense Time Series of Optical and SAR Earth Observation data for crop type classification. EARSeL 2019. 1.-5. July 2019, Salzburg, Austria.
- **Orynbaikyzy, A.**, (2019): Crop Type Classification Using Optical-SAR Data Fusion and the Effect of Spatial Autocorrelation. DFD-LAX-Seminar, 19 November 2019, DLR Oberpfaffenhofen, Germany.
- **Reinermann, S.**, (2019): Extreme hot and dry summers in Germany - Analysis of long-term Earth observation time-series of vegetation condition. DFD-LAX-Seminar, 12 March 2019, DLR Oberpfaffenhofen, Germany.
- Krämer, A., Schucknecht, A., **Asam, S.**, Kiese, R. (2019): Mapping vegetation parameters in pre-Alpine and Alpine grasslands with multispectral sensors. BONARES Status Seminar 2019, 19.-21.2.2019, Leipzig.

2018

- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Böttcher, M., Boissier, E., **Hirner, A.**, Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Svaton, V., Üreyen, S., Zeidler, J. (2018): TEP Urban - The Urban Thematic Exploitation Platform. Nationales Forum für Fernerkundung und Copernicus 2018, 28.-29. Nov. 2018, Berlin, Deutschland.
- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Böttcher, M., Boissier, E., **Hirner, A.**, Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Svaton, V., Üreyen, S., Zeidler, J. (2018): The Urban TEP - Utilizing Multi-Source Data for Innovative Urban Analysis and Monitoring. Mapping Urban Areas from Space 2018 (MUAS 2018), 30.-31. Okt .2018, Frascati, Italien.
- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Böttcher, M., Boissier, E., **Hirner, A.**, Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Svaton, V., Üreyen, S., Zeidler, J. (2018): New Perspectives for Sustainable Urban Development Arising from Joint Exploration of Big Data and Modern Information Technology. 2018 International Workshop on Big Geospatial Data and Data Science (BGDDS), 22.-23. Sep. 2018, Wuhan, China.
- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Böttcher, M., Boissier, E., **Hirner, A.**, Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Svaton, V., Üreyen, S., Zeidler, J. (2018): The Urban Thematic Exploitation Platform – Utilizing Multi-Source Data for Innovative Urban Analysis and Monitoring. InterCarto-InterGIS 24, 24-28 July, Bonn, Germany.

- Rossi, M., Niedrist, G., **Asam**, S., Tonon, G., Zebisch, M. (2018): Monitoring alpine grassland dynamics with optical sensors on multiple spatial scales, EO4Alps Workshop, 27-29 June 2018, Innsbruck, Austria
- Schucknecht, A., Krämer, A., **Asam**, S., Kiese, R. (2018): “Analysing the Potential of Multispectral Sensors to Map Vegetation Parameters in Pre-Alpine and Alpine Grasslands”, EO4Alps Workshop, 27-29 June 2018, Innsbruck, Austria
- **Asam**, S., Eisfelder, C., Klein, I., Künzer, C. (2018): Time Series Analysis Over Europe From AVHRR Data – Examples From The TIMELINE Project, 3rd joint EARSeL LULC & NASA LCLUC Workshop 11-12 July 2018, Chania, Greece.
- Rossi, M., **Asam**, S., Niedrist, G., Tonon, G., Zebisch, M. (2018): Monitoring Alpine grassland dynamics with optical sensors on multiple spatial scales. International SUSALPS Conference, 18. - 20. September 2018, Garmisch-Partenkirchen, Germany.
- Greifeneder, F., **Asam**, S. (2018): Monitoring of Alpine grasslands with multi-temporal optical and radar remote sensing. International SUSALPS Conference, 18. - 20. September 2018, Garmisch-Partenkirchen, Germany.
- Schucknecht, A., Krämer, A., **Asam**, S., Kiese, R. (2018): “Analysing the potential of multispectral sensors to map vegetation parameters in pre-Alpine and Alpine grasslands”. International SUSALPS Conference, 18. - 20. September 2018, Garmisch-Partenkirchen, Germany.
- Mejia-Aguilar, A., Rossi, M., Niedrist, G., **Asam**, S., Tonon, G., Zebisch, M., Notarnicola, C. (2018): Close range methods to monitor vegetation dynamics on a dry alpine mountain grassland over different spatial and temporal scales. Whispers Conference 2018, 23. – 26. September 2018, Amsterdam, Netherlands.
- **Gessner**, U., Klein, I., **Hirner**, A., Kuenzer, C. (2018): Crop type mapping in Southern Germany using the full annual Landsat archive and LUCAS in-situ data. 38th Annual EARSeL Symposium, 9 – 12 July, Chania, Greece.
- **Gessner**, U., Esch, T., Dietz, A., Leinenkugel, P., Kuenzer, C. (2018): Potential and Challenges of Earth Observation Time Series for the Analysis of Global Change. Key note, 38th Annual EARSeL Symposium, 9 – 12 July, Chania, Greece.
- Kusche, J., Doell, P., Bolch, T., van Dam, T., Dettermin, D., Eicker, A., Engels, O., Foglia, L., **Gessner**, U., Güntner, A., Kuenzer, C., Müller Schmied, H., Seitz, F., Sneeuw, N., Tourian, M. (2018): The GlobalCDA Project - Understanding the global freshwater system by combining geodetic and remote sensing information with modelling, using a calibration/data assimilation approach, EGU General Assembly, 8-13 April 2018, Wien, Austria.
- Hadjimitsis, D., Christofe, A., Agapiou, A., Lysandrou, V., Themistocleous, K., Nisantzi, A., Tzouvaras, M., Papoutsas, C., Mamouri, R., Mettas, C., Evagorou, E., Lasaponara, R., Masini, N., Danese, M., Sileo, M., Krauss, T., Cerra, D., **Gessner**, U., Schreier G. (2018): ATHENA Twinning project: Remote sensing for cultural heritage, , EGU General Assembly, 8-13 April 2018, Wien, Austria.
- Klein, I., **Gessner**, U., **Hirner**, A., Dietz, A., Dech, S., Kuenzer, C. (2018): A surface water body dataset with daily temporal resolution – Selected examples and application

potential of the Global WaterPack: ESA Mapping Water Bodies from Space, 28-29 March 2018, Frascati, Italy.

- **Klein, I., Gessner, U., Hirner, A.,** Dietz, A., Dech, S., Kuenzer, C. (2018): Daily dynamics of water bodies over 15 years. Selected examples for the relationship of water body extents, temperature and precipitation. DLR Climate Change Conference, 17-19 April 2018, Cologne, Germany.
- **Klein, I.,** Kuenzer, C. (2018): The Potential of Earth Observation for the Analysis of River Deltas and the Coastal Zone. ASLO 2018 Summer meeting – Water Connects, 8-15 June 2018, Victoria, Canada.
- Eisfelder, C., **Asam, S.,** Frey, C., Kuenzer, C., Dech, S. (2018): Time-series processing of AVHRR data for NDVI product generation – an example from the TIMELINE project, Photogrammetrie-Fernerkundung-Geoinformatik-Kartographie 2018, 7-9 March 2018, Munich, Germany.
- Rossi, M., Niedrist, G., **Asam, S.,** Tonon, G., Zebisch, M (2018): Monitoring Vegetation Dynamics and Stress with Optical Sensors: A study of Alpine Grasslands among Multiple Spatial Scales, European Geosciences Union General Assembly 2018, 8–13 April 2018, Vienna, Austria.
- Castelli, M., **Asam, S.,** Jacob, A., Zebisch, M., Notarnicola, C. (2018): Monitoring daily evapotranspiration in the Alps exploiting Sentinel-2 and meteorological data Remote Sensing and Hydrology Symposium (ICRS-IAHS), May, 8-10, 2018, Cordoba, Spain.
- Klein, D., Fischer, C., **Asam, S.,** Plank, S., Nolde, M., Richter, R., Soszynska, A., Strobl, C., Frauenberger, O., Lorenz, E., Halle, W. (2018): Die Detektion von Thermalanomalien und Thermalmustern mit Hilfe der Daten der DLR- FireBIRD-Mission. Symposium „Neue Perspektiven der Erdbeobachtung“, 25 – 27 June 2018, Cologne, Germany.
- **Asam, S.,** Callegari, M., Jacob, A., Notarnicola, C. (2018): Understanding Spatiotemporal Vegetation Patterns and Phenology Over the Alps Based on Medium Resolution Satellite Remote Sensing Data, EO4Alps Workshop, 27-29 June 2018, Innsbruck, Austria
- Klein, D., Fischer, C., **Asam, S.,** Plank, S., Nolde, M., Richter, R., Soszynska, A., Strobl, C., Frauenberger, O., Lorenz, E., Halle, W. (2018): Data from the DLR FireBIRD mission, EARSeL Symposium 2018, 9-12 July 2018 Chania, Crete, Greece.
- **Asam, S.,** Gessner, U., Richter, R., Klein, D., Fischer, C. (2018): Detection of Land Surface Temperature Patterns in Thuringia, Germany, Using Atmospherically Corrected FireBIRD/TET-1 Data, EARSeL Symposium 2018, 9-12 July 2018 Chania, Crete, Greece.
- Rossi, M., Niedrist, G., **Asam, S.,** Tonon, G., Zebisch, M. (2018): Optical Responses On Multiple Spatial Scales For Assessing Vegetation Dynamics - A Case Study For Alpine Grasslands, International Geoscience and Remote Sensing Symposium, IGARSS 2018, 23 – 27 July, 2018, Valencia, Spain.
- Halle, W., **Asam, S.,** Borg, E., Fischer, C., Frauenberger, O., Lorenz, E., Klein, D., Nolde, M., Paproth, C., Plank, S., Richter, R., Säuberlich, T., Soszynska, A., Strobl, C. (2018): Firebird – Small Satellite For Wild Fire Assessment, International Geoscience and Remote Sensing Symposium, IGARSS 2018, 23 – 27 July, 2018, Valencia, Spain.

- **Da Ponte**, E., Fleckenstein, M., Oppelt, N., Huth, J., Kuenzer, C. (2018): Forest Cover loss in Paraguay: Earth Observation Analysis for Deforestation Policies., EARSeL Symposium 2018, 9-12 July 2018 Chania, Crete, Greece.
- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Böttcher, M., Boissier, E., **Hirner**, A., Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Svaton, V., Üreyen, S., Zeidler, J. (2018): TEP Urban - The Urban Thematic Exploitation Platform. Nationales Forum für Fernerkundung und Copernicus 2018, 28.-29. Nov. 2018, Berlin, Germany.
- Bachofer, F., Esch, T., Asamer, H., Balhar, J., Boettcher, M., Boissier, E., **Hirner**, A., Mathot, E., Marconcini, M., Metz-Marconcini, A., Pacini, F., Permana, H., Soukup, T., Üreyen, S., Svaton, V., Zeidler, J. (2018) *The Urban TEP - Utilizing Multi-Source Data for Innovative Urban Analysis and Monitoring*. Mapping Urban Areas from Space 2018 (MUAS 2018), 30.-31. Oct .2018, Frascati, Italy.
- Schucknecht A, Krämer A, **Asam** S, Kiese R (2018) Mapping vegetation parameters in pre-Alpine and Alpine grasslands – a field experiment to analyse the potential of UAV-borne multispectral sensors. TERENO International Conference, 8.-12.December.2018, Berlin, Germany

2017

- **Da Ponte**, E., Fleckenstein, M., Parker, A., Oppelt, N., Kuenzer, C. (2017): Paraguay’s Atlantic Forest Cover Dynamics and Ecosystem Services Perception; a household survey case study. IUFRO 125th, 18 – 22 September, 2017, Freiburg, Germany.
- **Winkler**, K. (2017): Landwirtschaftliche Dürren in Afrika und ihre Beziehung zu ENSO auf Basis von Fernerkundungszeitreihen von 2000-2016, Junger Kongress für Geographie (JKG), 2 October 2017, Tübingen, Germany.
- **Da Ponte**, E., Fleckenstein, M., Parker, A., Oppelt, N., Kuenzer, C. (2017) Assessing forest cover dynamics and ecosystem services perception in the Atlantic forest of Paraguay; combining remote sensing and household level data. ISRSE, 8 – 12 May, 2017, Pretoria, South Africa.
- **Gessner**, U., **Klein**, I., Dech, S., Kuenzer, C. (2017): Dynamics of global wetlands reflected in the daily time series product Global WaterPack. ISRSE 2017, 8-12 May 2017, Tshwane, South Africa.
- Olusegun, C.F., **Gessner**, U., Hirner, A., Salack, S., Forkuor, G., Berger, S., Heinzeller, D., Dieng, D., Sylla, B., Kunstmann, H., Lamers, J. P.A., Tondoh, J. (2017): WASCAL - West African Science Service Center on Climate Change and Adapted Land Use. Subsidiary Body for Scientific and Technological Advice (SBSTA), Ninth meeting of the Research Dialogue, 10.5.2017, Bonn, Deutschland.
- Moser, L., Probeck, M., Ramminger, G., Sannier, C., Desclée, B., Schardt, M., Gallaun, H., Deutscher, J., Defourny, P., Blaes, X., **Klein**, I., Keil, M., **Hirner**, A., Esch, T. (2017): Sentinel-based Evolution of Copernicus Land Services on Continental and Global Scale. WorlCover 2017, 14-16 March 2017, Frascati (Rome), Italy.

2016

- **Gessner**, U., Knauer, K., Machwitz, M., Dech, S., Kuenzer, C. (2016): Impacts of Socio-economic development and urbanization on natural resources – case studies from Africa. IGARSS, 10-15 July 2016, Beijing, China.
- **Klein**, I., **Gessner**, U., Dietz, A., Leinenkugel, P., Dech, S., Kuenzer, C. (2016): Detection of inland water bodies with high temporal resolution – assessing dynamic threshold approaches. IGARSS, 10-15 July 2016, Beijing, China.
- **Gessner**, U., Knauer, K., **Klein**, I., Kuenzer, C. (2016): Assessing socio-economic and climate related impacts on natural resources in rural areas of West Africa. EARSeL Symposium, 20-24 June 2016, Bonn, Germany.
- Eisfelder, C., **Gessner**, U., Xinwu, L., Huang, C., Dech, S., Künzer, C. (2016): Remote Sensing based Modelling of Net Primary Productivity for China – Analysing trends, monitoring human impact and forest disturbance. EARSeL Symposium, 20-24 June 2016, Bonn, Germany.
- **Mack**, B., Leinenkugel, P., Huth, J., **Gessner**, U., Künzer, C. (2016): Pan-European Land Cover Classification with Landsat Data – Preliminary Results. In: Proceedings of the 36th Annual EARSeL Symposium, Seiten 137-138. 36th EARSeL Symposium, 20.-24. Juni 2016, Bonn, Germany.
- Agapiou, A., Lysandrou, V., Themistocleous, K., Lasaponara, R., Masini, N., Krauss, T., Cerra, D., **Gessner**, U., Schreier, G., Hadjimitsis, D. (2016): Searching data for supporting archaeo-landscapes in Cyprus: an overview of aerial, satellite and cartographic datasets of the island. Proceedings of SPIE 4th International Conference on Remote Sensing and Geoinformation of the Environment Vol. 9688
- Kuenzer, C., Clauss, K., Dietz, A., Leinenkugel, P., **Mack**, B., Klein, I., **Gessner**, U., Ottinger, M., Dech, S (2016): Earth Observation Time Series for Global Environmental Change. Digital Earth Summit, ISDE, 7.-8. July 2016, Beijing, China.
- Hadjimitsis, D., Agapiou, A., Lysandrou, V., Themistocleous, K., Lasaponara, R., Masini, N., Krauss, T., Cerra, D., **Gessner**, U., Schreier, G. (2016): Establishing a remote sensing science center in Cyprus: first year of activities of ATHENA project, 6th International Euro-Mediterranean Conference (EuroMed 2016), 31 October - 5 November 2016, Nicosia, Cyprus.
- Hadjimitsis, D. G., Agapiou, A., Lysandrou, V., Branka, C., Themistocleous, K., Nisantzi, A., Lasaponara, R., Masini, N., Krauss, T., Cerra, D., **Gessner**, U., Schreier, G. (2016): ATHENA: Center of Excellence in Cyprus in the Field of Remote Sensing for Cultural Heritage in the Areas of Archaeology and Cultural Heritage, 6th GEOBIA 2016, 14-16 September 2016, Enschede, The Netherlands.
- Hadjimitsis, D. G., Agapiou, A., Lysandrou, V., Branka, C., Themistocleous, K., Lasaponara, R., Masini, N., Krauss, T., Cerra, D., **Gessner**, U., Schreier, G. (2016): ATHENA: Remote Sensing Science Center for Cultural Heritage in Cyprus. European Geosciences Union – EGU, General Assembly 2016, 17 – 22 April 2016, Vienna, Austria.
- Hadjimitsis, D. G., Agapiou, A., Lysandrou, V., Branka, C., Themistocleous, K., Nisantzi, A., Lasaponara, R., Masini, N., Krauss, T., Cerra, D., **Gessner**, U., Schreier, G. (2016): Establishment of a center of excellence in the field of remote sensing for cultural heritage at the Cyprus university of technology: the 'ATHENA' Horizon 2020 Twinning project, Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016), 4-8 April, 2016, Cyprus.
- Clauss, K., **Mack**, B., Dech, S., Kuenzer, C. (2016): Mapping paddy rice in Asia: a multi-sensor, time-series approach. 36th EARSeL Symposium 2016, 20-24 June 2016, Bonn, Germany.

- **Mack**, B., Leinenkugel, P., Kuenzer, C. (2016): A full Automated Approach for the Generation and Analysis of Land Use and Land Cover Based on High Resolution Satellite Timeseries. ESA Living Planet Symposium, 9.-13. May 2016, Prague, Czech Republic.
- **Da Ponte**, E., Fleckenstein, M., Crodas, O., Roch, M., Oppelt, N., Kuenzer, C. (2016): Forest Cover Loss in Paraguay and Ecosystem Services Approaches: an Upper Parana Forest Study Case In: Proceedings of the 36th Annual EARSeL Symposium, Seiten 78. 36th EARSeL Symposium, 20.-24. June 2016, Bonn, Germany.
- **Frey**, CM. (2016): Precision of mono- and split window algorithms for LST estimation from AVHRR. DUE GlobTemperature User Consultation Meeting, 07.-08. Aug. 2016, Lisbon, Portugal.
- **Frey**, CM., Klüser L, Gesell G, Bachmann M (2016): TIMELINE 1-km AVHRR basis parameters: reflectance, clouds, LST. 36th EARSeL Symposium, 20.-24. Jun. 2016, Bonn, Deutschland.
- **Frey**, CM. (2016): Estimation of Land Surface Temperature from 1-km AVHRR data. European Geosciences Union General Assembly 2016, 17.-22. April, Vienna, Austria.
- Esch, T., Asamer, H., **Hirner**, A., Marconcini, M., Metz, A., Zeidler, J., Boettcher, M., Permana, H., Mathot, E., Pacini, F., Boisser, E., Soukup, T., Balhar, J., Kuchar, S., Stanek, F. (2016): Urban Thematic Exploitation Platform – A Novel Concept for the Exploration of Earth Observation Data and Derived Thematic Information Products for Urban Studies. EO Open Science 2016 Conference, 12.-14. Sep. 2016, Frascati (Rome), Italy.
- Esch, T., Asamer, H., Boettcher, M., Brito, F., **Hirner**, A., Marconcini, M., Mathot, E., Metz, A., Permana, H., Soukup, T., Stanek, F., Kuchar, S., Zeidler, J. (2016): Earth observation-based service platforms - a new instrument to provide geo-information for urban and regional planning. In: 2016 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), pp. 1774-1777. IEEE. IGARSS 2016, 10-15 July 2016, Beijing, China.
- Esch, T., Asamer, H., Boettcher, M., Brito, F., **Hirner**, A., Marconcini, M., Mathot, E., Metz, A., Permana, H., Soukup, T., Stanek, F., Kuchar, S., Zeidler, J., Balhar, J. (2016): Earth Observation-Supported Service Platform for the Development and Provision of Thematic Information on the Built Environment – the TEP-Urban Project. XXIII ISPRS Congress 2016, 12.-19. July 2016, Prague, Czech Republic.
- Esch, T., Marconcini, M., Metz, A., **Hirner**, A., Asamer, H., Zeidler, J., Boettcher, M., Storm, T., Brito, F., Mathot, E., Boisser, E., Soukup, T., Stanek, F., Vondrak, V. (2016): TEP Urban - Collaborative Service Platform for Exploration and Generation of Thematic Information on the Built Environment based on Earth Observation Data. In: Living Planet Symposium 2016. Living Planet Symposium 2016, 9-13 May 2016, Prague, Czech Republic.

2015

- **Gessner**, U., Forkuor, G., Knauer, K., **Klein**, I., Kuenzer, C. (2015): Landbedeckung, Landnutzung und Klimawandel in Westafrika. Fernerkundungsbasierte Arbeiten im Projekt WASCAL. Jahrestreffen des AK Subsaharisches Afrika, 27-28 November 2016, Cologne, Germany.
- Knauer, K., **Gessner**, U., Fensholt, R., Kuenzer, C. (2015): Remote Sensing of Vegetation Dynamics in West Africa: Improved Satellite Time Series for Agricultural Analyses. Jahrestreffen des AK Subsaharisches Afrika, 27-28 November 2016, Cologne, Germany.

- Klein, C., Heinzeller, D., Bliedernicht, J., **Gessner**, U., **Klein**, I., Kunstmann, H. (2015): Modelled feedback of observed inter-annual vegetation changes on the West African monsoon. Water and Energy Cycles in the Tropics. 17-19 November 2015, Paris, France.
- Kuenzer, C., van Beijma, S., **Gessner**, U., Dech, S. (2015): Exploring the Potential of Earth Observation for the Monitoring of Oil Industry Induced Impacts in the Niger Delta, Nigeria. ECSA 55 Unbounded boundaries and shifting baselines: Estuaries and coastal seas in a rapidly changing world. 6-9 September 2015, London, UK.
- **Gessner**, U., Leinenkugel, P., **Klein**, I., Dietz, A., Kuenzer, C. (2015): Assessment of land surface dynamics based on time series of OLCI-type moderate resolution earth observation data. Sentinel-3 for science workshop, 2-5 June 2015, Venice, Italy.
- **Gessner**, U., Knauer, K., Kuenzer, C. (2015): Tree cover patterns and changes in the West Sudanian Savanna and observed socio-economic impacts. 36th International Symposium on Remote Sensing of Environment, 11-15 May 2015, Berlin, Germany.
- Knauer, K., **Gessner**, U., Dech, S., Kuenzer, C. (2015): Remote sensing of vegetation dynamics in West Africa: Improved satellite time series for phenological analyses. 36th International Symposium on Remote Sensing of Environment, 11-15 May 2015, Berlin, Germany.
- Kuenzer, C., Leinenkugel, P., **Frey**, C., Huth, J., Ottinger, M., **Gessner**, U., Dech, S. (2015): The Land-Use Dynamics and Water Nexus for the transboundary Mekong Basin: Potentials and Limitations of Earth Observation. Dresden Nexus Conference 2015, 25-27 March 2015, Dresden, Germany.
- **Gessner**, U., **Klein**, I., Knauer, K., Arnault, J., Bliedernicht, J., Kuenzer, C. (2015): Earth observation based analyses of land-use dynamics in West Africa. Dresden Nexus Conference 2015, 25-27 March 2015, Dresden, Germany.
- Huth, J., Ahrens, M., **Klein**, I., **Gessner**, U., Hoffmann, J., Kuenzer, C. (2015): WaMaPro – a user friendly tool for water surface derivation from SAR data – and further products derived from optical data. ESA Mapping Water Bodies from Space Conference 2015 18-19 March 2015, Frascati (Rome), Italy.
- **Klein**, I., **Gessner**, U., Dietz, A., Leinenkugel, P., Dech, S., Kuenzer, C. (2016) Detection of Inland Water Bodies with High Temporal Resolution. Browse Conference Publications. IGARSS 2016, 10-15 Jul. 2016, Beijing, China.
- Kuenzer, C., Clauss, K., Dietz, A., Leinenkugel, P., **Mack**, B., **Klein**, I., **Gessner**, U., Ottinger, M., Dech, S. (2016) Earth Observation Time Series for Global Environmental Change. Digital Earth Summit, ISDE, 7.-8. July 2016, Beijing, China.
- **Gessner**, U., Knauer, K., **Klein**, I., Kuenzer, C. (2016): Assessing socio-economic and climate-related impacts on natural resources in rural areas of West Africa. Proceedings of the 36th annual EARSeL symposium, s. 189. 36th EARSeL Symposium, Bonn, Germany.
- Leinenkugel, P., Huth, J., Ottinger, M., Dietz, A., **Klein**, I., Kuenzer, C. (2016): Water availability and hydrological modelling. IGSTC Workshop: Recent advancement in online/remote water quality monitoring and management technologies, 2.-4. Feb. 2016, Chennai, India.
- Schoene, T., Dusik, E., Illigner, J., **Klein**, I. (2015): Water in Central Asia - Reservoir Monitoring with Radar Altimetry along the Naryn and Syr Darya River. In: International Association of Geodesy Symposia. IUGG 2015, 22. Jul. - 2. Jun. 2015, Prague, Czech Republic.
- Esch, T., Heldens, W., **Hirner**, A., Keil, M., Marconcini, M., Roth, A., Zeidler, J. (2015): Global Urban Footprint - A Key Step in Characterizing the Global Human

Settlements Pattern from Space. Conference Mapping Urban Areas from Space, 4-5 Nov. 2015, Frascati (Rome), Italy.

- Esch, T., **Hirner**, A., Asamer, H., Reck, C., Schneider, M., Marconcini, M., Metz, A., Böttcher, M., Brito, F., Mathot, E., Soukup, T., Stanek, F., Vondrak, V. (2015): Enabling Technologies for Large-Scale Environmental Monitoring - Exploring New Opportunities For Mass Earth Observation Data Exploitation Based on Integrative Services and Platforms. Symposium of the International Society for Digital Earth (ISDE), October 5-9 2015, Halifax, Canada.
- Esch, T., Brito, F., Marconcini, M., Metz, A., **Hirner**, A., Asamer, H., Böttcher, M., Storm, T., Mathot, E., Soukup, T., Stanek, F., Vondrak, V.(2015): TEP Urban - Motivation - Capabilities - Expected Impact. In: Earth Observation Science 2.0 conference. Earth Observation Science 2.0 conference, 12-14 Oct 2015, Frascati (Rome), Italy.

Book Contributions

2018

- Eisfelder, C., **Gessner**, U., Tum, M., Zeidler, J. (2018): Remote sensing based net primary productivity estimation – results from 16-years global modelling for Europe, Central Asia, and Western Siberia. In Sychev, V.G.; Mueller, L. ed., ‚Novel methods and results of landscape research in Europe, central Asia and Siberia, Vol III: Landscape monitoring and modeling‘. Russian Academy of Sciences, Moscow, Russia, pp. 204-208.
- Müller, I., Hipondoka, M., **Winkler**, K., **Gessner**, U., Martinis, S., Taubenböck, H. (2018): Monitoring flood and drought events – earth observation for multiscale assessment of water-related hazards and exposed elements. In Revermann, R., Krewenka, K.M., Schmiedel, U., Olwoch, J.M., Helmschrot, J. & Jürgens, N., ed., ‚Climate Change and adaptive land management in southern Africa. Assessments, changes, challenges, and solutions‘. Biodiversity & Ecology 6, Klaus Hess Publishers, Göttingen & Windhoek, pp. 136-143.

2015

- **Gessner**, U., Knauer, K., Kuenzer, C., Dech, S. (2015): Land surface phenology in a West African savannah: impact of land use, land cover and fire. In: C. Kuenzer & S. Dech, ed., ‚Remote Sensing Time Series revealing Land Surface Dynamics‘. Springer, Berlin, pp. 203-223.
- Niklaus, M., Eisfelder, C., **Gessner**, U., Dech, S. (2015): Land Degradation in South Africa – A Degradation Index Derived from 10 Years of Net Primary Production Data. In: C. Kuenzer & S. Dech, ed., ‚Remote Sensing Time Series revealing Land Surface Dynamics‘. Springer, Berlin, pp. 247-267.
- **Klein**, I., Dietz, A., **Gessner**, U., Kuenzer, C. (2015): Global WaterPack: Intra-Annual Assessment of Spatio-Temporal Variability of Inland Water Bodies. : C. Kuenzer & S. Dech, ed., ‚Remote Sensing Time Series revealing Land Surface Dynamics‘. Springer, Berlin, pp. 99-119.

Further Publications

2016

- Esch, T., **Hirner**, A., Asamer, H., Reck, C., Marconcini, M., Metz, A., Boettcher, M., Mathot, E., Permana, H., Soukop, T., Stanek, F., Kuchař, Š., Zeidler, J. (2016): New Opportunities for Global Environmental Monitoring Arising from Integrative Service Platforms for Earth Observation Data Exploitation. In: The Fourth International Workshop on Earth Observation and Remote Sensing Applications, p. 1. The Fourth International Workshop on Earth Observation and Remote Sensing Applications, 4-6 Juli 2016, Guangzhou, China. Volltext nicht frei.
- Esch, T., Heldens, W., **Hirner**, A., Keil, M., Marconcini, M., Roth, A., Zeidler, J. (2016): The Global Urban Footprint - A Key Step in Characterizing the Global Human Settlements Pattern from Space. PIK Climate Change & Development Colloquium, 21 January 2016, Potsdam, Deutschland. Volltext nicht online.

Master Thesis

2020

- **Ahlswede**, S. (2020): Optimization of Convolutional Neural Networks for Hedgerow Object Detection in Very High-Resolution Satellite Images. Master Thesis, Universität Trier.

2019

- **Reiners**, P. (2019): Multi-annual assessment of a new consistent AVHRR Land Surface Temperature product using MODIS LST and in situ measurements. Master Thesis, Philipps-Universität Marburg.
- **Hueffer**, V. (2019): Modeling habitat suitability and outbreak potential of *Calliptamus italicus* (Linnaeus 1758) in Pavlodar Region, Kazakhstan based on remote sensing data. Master Thesis, Universität Trier.

2018

- **Reinermann**, S. (2018): Extreme Events in Europe between 2000 and 2017: Analysis of Vegetation Dynamics based on Earth Observation Time Series. Master Thesis, University of Bayreuth.

PhD Thesis

2018

- **Da Ponte**, E. (2018): Assessment of forest cover dynamics in Paraguay: A case study of the Upper Parana Atlantic Forest. Doctoral Thesis, University of Kiel.