Dr Victor Maus

Senior Researcher

Curriculum Vitae
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I am a researcher in Geoinformatics and Spatial Data Science for sustainable development, in particular related to land-use changes. I am the author of Time-Weighted Dynamic Time Warping (TWDTW) algorithm, to classify Earth observation time series in data-scarce conditions. I have implemented the TWDTW as open-source in my R package dtwSat. I have also led the production of the first-ever spatially-explicit global assessment of mining land use to assess the environmental impacts and sustainability of the global mining sector.

EDUCATION

2016	**PhD in Earth System Science** National Institute for Space Research (INPE)	São José dos Campos, Brazil
2011	**MSc in Computational Modeling** Federal University of Juiz de Fora (UFJF)	Juiz de Fora, Brazil
2009	**BSc in Environmental Engineering** Franciscan University (UFN)	Santa Maria, Brazil

CURRENT POSITIONS

2018-Today	**Senior Researcher** Vienna University of Economics and Business (WU)	Vienna, Austria
2016-Today	**Research Scholar** International Institute for Applied Systems Analysis (IIASA)	Laxenburg, Austria

PREVIOUS POSITIONS

2014-2016	**Research Assistant** University of Münster (WWU)	Münster, Germany
2012-2014	**University Lecturer** Federal University of Pampa (UNIPAMPA)	Itaqui, Brazil
2011-2012	**Research Assistant** National Institute for Space Research (INPE)	São José dos Campos, Brazil
2009-2011	**Research Assistant** Federal University of Juiz de Fora (UFJF)	Juiz de Fora, Brazil

AWARDS

RESEARCH GRANTS

FELLOWSHIPS

2014-2016	**Research Assistant** University of Münster (WWU)	Münster, Germany
2012-2014	**University Lecturer** Federal University of Pampa (UNIPAMPA)	Itaqui, Brazil
2011-2012	**Research Assistant** National Institute for Space Research (INPE)	São José dos Campos, Brazil
2009-2011	**Research Assistant** Federal University of Juiz de Fora (UFJF)	Juiz de Fora, Brazil

SUPERVISION OF STUDENTS

2014-2016	**Research Assistant** University of Münster (WWU)	Münster, Germany
2012-2014	**University Lecturer** Federal University of Pampa (UNIPAMPA)	Itaqui, Brazil
2011-2012	**Research Assistant** National Institute for Space Research (INPE)	São José dos Campos, Brazil
2009-2011	**Research Assistant** Federal University of Juiz de Fora (UFJF)	Juiz de Fora, Brazil

TEACHING ACTIVITIES

INSTITUTIONAL RESPONSIBILITIES

REVIEWING ACTIVITIES

PUBLICATIONS

1. Luckeneder, S., Giljum, S., Schaffartzik, A., **Maus, V.**, & Tost, M. (2021). Surge in global metal mining threatens vulnerable ecosystems. *Global Environmental Change*, *69*, 102303. https://doi.org/10.1016/j.gloenvcha.2021.102303
2. **Maus, V.**, Giljum, S., Gutschlhofer, J., Silva, D. M. da, Gass, S. L. B., Luckeneder, S., Lieber, M., & McCallum, I. (2020). A global-scale data set of mining areas. *Scientific Data*, *7*(1), 289. https://doi.org/10.1038/s41597-020-00624-w
3. Bruckner, M., Wood, R., Moran, D., Kuschnig, N., Wieland, H., **Maus, V.**, & Börner, J. (2019). FABIO–the construction of the food and agriculture biomass input-output model. *Environmental Science & Technology*, *53*(19), 11302–11312. https://doi.org/10.1021/acs.est.9b03554
4. Stanimirova, R., Arévalo, P., Kaufmann, R. K., **Maus, V.**, Lesiv, M., Havlík, P., & Friedl, M. A. (2019). Sensitivity of global pasturelands to climate variation. *Earth's Future*. https://doi.org/10.1029/2019EF001316
5. **Maus, V.**, Câmara, G., Appel, M., & Pebesma, E. (2019). dtwSat: Time-Weighted Dynamic Time Warping for Satellite Image Time Series Analysis in R. *Journal of Statistical Software*, *88*(5), 1–31. https://doi.org/10.18637/jss.v088.i05
6. Bruckner, M., Häyhä, T., Giljum, S., **Maus, V.**, Fischer, G., Tramberend, S., & Börner, J. (2019). Quantifying the global cropland footprint of the european union's non-food bioeconomy. *Environmental Research Letters*, *14*(4), 045011. https://doi.org/10.1088/1748-9326/ab07f5
7. Hadi, Krasovskii, A., **Maus, V.**, Yowargana, P., Pietsch, S., & Rautiainen, M. (2018). Monitoring Deforestation in Rainforests Using Satellite Data: A Pilot Study from Kalimantan, Indonesia. *Forests*, *9*(7). https://doi.org/10.3390/f9070389
8. See, L., Laso Bayas, J. C., Schepaschenko, D., Perger, C., Dresel, C., **Maus, V.**, Salk, C., Weichselbaum, J., Lesiv, M., McCallum, I., Moorthy, I., & Fritz, S. (2017). LACO-Wiki: A New Online Land Cover Validation Tool Demonstrated Using GlobeLand30 for Kenya. *Remote Sensing*, *9*(7). https://doi.org/10.3390/rs9070754
9. Furlan, V. J. M., **Maus, V.**, Batista, I., & Bandarra, N. M. (2017). Production of docosahexaenoic acid by Aurantiochytrium sp. ATCC PRA-276. *Brazilian Journal of Microbiology*, *48*(2), 359–365. https://doi.org/10.1016/j.bjm.2017.01.001
10. **Maus, V.**, Camara, G., Cartaxo, R., Sanchez, A., Ramos, F. M., & Queiroz, G. R. de. (2016). A time-weighted dynamic time warping method for land-use and land-cover mapping. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *9*(8), 3729–3739. https://doi.org/10.1109/JSTARS.2016.2517118
11. Furlan, V. J. M., Castelo Paulo, M. do, **Maus, V.**, Ferreira, J., Batista, I., & Bandarrac, N. M. (2016). Production of docosahexaenoic acid (DHA) from Thraustochytrium sp. ATCC 26185 using different nitrogen concentrations. *Boletim Centro de Pesquisa de Processamento de Alimentos*, *34*(2), 1–11. https://doi.org/10.5380/cep.v34i2.53189
12. See, L., Schepaschenko, D., Lesiv, M., McCallum, I., Fritz, S., Comber, A., Perger, C., Schill, C., Zhao, Y., **Maus, V.**, Siraj, M. A., Albrecht, F., Cipriani, A., Vakolyuk, M., Garcia, A., Rabia, A. H., Singha, K., Marcarini, A. A., Kattenborn, T., … Obersteiner, M. (2015). Building a hybrid land cover map with crowdsourcing and geographically weighted regression. *ISPRS Journal of Photogrammetry and Remote Sensing*, *103*, 48–56. https://doi.org/10.1016/j.isprsjprs.2014.06.016
13. **Maus, V.**, Costa, A. B. da, & Righes, A. A. (2009). Tratamento do lixiviado de aterro de resíduos sólidos urbanos por processo fenton. *Tecno-Lógica*, *13*(1), 52–59. https://doi.org/10.17058/tecnolog.v13i1.931