Dr Victor Maus

Senior Researcher

Curriculum Vitae
Jänner 2022

Welthandelsplatz 1, 1020 Vienna, Austria
victor-maus.com
+43 1 31336 6176
vwmaus1@gmail.com
@victor_maus
vwmaus
victor-maus-083a79191
wN2LseQAAAAJ&hl
0000-0002-7385-4723

Victor Maus is a researcher at the Institute for Ecological Economics from Vienna University of Economics and Business (WU), Austria. He also works as a research scholar at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria, since 2016. His research contributes to methodological developments in geoinformatics and spatial data science for sustainable development, particularly related to land-use changes. His main early achievements include the development of a pattern recognition algorithm called Time-Weighted Dynamic Time Warping (TWDTW) to classify satellite image time series in data-scarce conditions and the production of the first global map of mining activities. Maus has published his research in leading international journals such as Global Environmental Change, Nature Scientific Data, and the Journal of Statistical Software.

ACADEMIC CAREER

2018-Today	**Senior researcher in geoinformatics** Vienna University of Economics and Business (WU)	Vienna, Austria
2016-Today	**Research scholar in Earth observation data analytics** International Institute for Applied Systems Analysis (IIASA)	Laxenburg, Austria
2014-2016	**Research assistant in big geospatial data analytics** University of Münster (WWU)	Münster, Germany
Jun - Aug/2013	**Research assistant** International Institute for Applied Systems Analysis (IIASA), Young Scientist Summer Program (YSSP)	Laxenburg, Austria
2012-2014	**University lecturer in science and technology** Federal University of Pampa (UNIPAMPA)	Itaqui, Brazil
2011-2012	**Research assistant in remote sensing** National Institute for Space Research (INPE)	São José dos Campos, Brazil
2009-2011	**Research assistant computational modelling** Federal University of Juiz de Fora (UFJF)	Juiz de Fora, Brazil

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

AWARDS

2022	**Researcher of the month award** Vienna University of Economics and Business (WU)	Vienna, Austria

TRAINING

2020	**Communication training – Speaking with Confidence and Impact** Vienna University of Economics and Business (WU)	Vienna, Austria
2019	**Pedagogical training – The basics of teaching and learning in higher education** Vienna University of Economics and Business (WU)	Vienna, Austria

2019	**Leadership training – Setting people in motion: leading and motivating your team** Vienna University of Economics and Business (WU)	Vienna, Austria
2013	**Pedagogical Treating – University teaching: methods and evaluation** Federal University of Pampa (UNIPAMPA)	Itaqui, Brazil

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 Auranti-ochytrium 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 ge-ographically 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