



Jonas Kloeckner

Postdoctoral Scholar, Earth and Planetary Sciences

Bio

BIO

Jonas Kloeckner is a Postdoctoral Fellow at the Stanford Doerr School of Sustainability, sponsored by the Stanford Institute for Human-Centered Artificial Intelligence (HAI). He specializes in critical mineral exploration essential for the sustainable energy transition. Utilizing his expertise in artificial intelligence and resource forecasting, Mr. Kloeckner leads initiatives that strive to align with global sustainability goals.

Jonas earned his PhD in Engineering from the Federal University of Rio Grande do Sul (UFRGS), Brazil, where he later served as a Postdoctoral Fellow at the Institute of Geosciences. His doctoral and postdoctoral research focused on advancing geostatistical methods for Earth resources forecasting, significantly contributing to the field.

Previously, Jonas was a Visiting Research Scholar at Stanford University under the mentorship of Professor Jef Caers. He holds a Master's and Bachelor's degree in Mining Engineering from UFRGS, with additional international studies at Ecole des Mines d'Alès, France, and as a visiting student at Columbia University, USA.

Jonas's current research integrates spatial data analysis with advanced decision-making processes in subsurface systems, enhancing resource management strategies and supporting sustainable mining practices. Beyond academia, he actively collaborates on various international projects, optimizing resource extraction and minimizing environmental impacts through innovative technology and interdisciplinary collaboration.

STANFORD ADVISORS

- Jef Caers, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Resource Expansion with Uncertainty Quantification of Regolith-Hosted REE Deposits Using Radiometric Data** *NATURAL RESOURCES RESEARCH*
Caers, J., Yin, D., Asadi, A., Kloeckner, J., Carrasco-Rojas, M., Delgado-Rivas, D., Martin, J., Mardonez, J.
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- **Quantifying uncertainty in ultra-deepwater carbonate facies modeling** *GEOENERGY SCIENCE AND ENGINEERING*
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- **Application of risk assessment to improve sustainability in bauxite mining** *RESOURCES POLICY*

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- **Multi-categorical classification using deep learning applied to the diagnosis of gastric cancer** *Brazilian Journal of Pathology and Laboratory Medicine*

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2020; 56 (1): 1-7

- **Use of heterotopic secondary data in geostatistics using covariance tables** *APPLIED EARTH SCIENCE-TRANSACTIONS OF THE INSTITUTIONS OF MINING AND METALLURGY*

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2020; 129 (1): 15-26

- **Covariance table: A fast automatic spatial continuity mapping** *COMPUTERS & GEOSCIENCES*

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