

José Kling



PROFILE SUMMARY

Applied mathematician with a solid understanding of mathematical and statistical concepts and experience in mathematically formalizing problems to find precise and theoretically sound solutions. A fast learner with strong problem-solving skills and the ability to communicate findings both orally and in writing.

PERSONAL INFORMATION

Email: jose.kling@pm.me
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Mobile: +49 174 405 2521
Residence: Hamburg, Germany
Citizenship: Brazilian/Italian

SKILLS

- Julia, Python, MATLAB, SQL, Docker
- Mathematics, statistics, machine learning
- Git, GitHub, LaTeX
- Microsoft Excel, Word, PowerPoint
- Problem solving
- Scientific writing and presentation

LANGUAGES

- Portuguese - Native
- English - Fluent
- Spanish - Advanced
- German - B2
- Italian - Intermediate

CURRENT POSITION

May 2025 – Jul 2025 Researcher in Applied Mathematics
[GEOMAR](#)

Ash layers from volcanic eruptions can be found on land or in sediments retrieved from the ocean floor. For on land layers it is usually possible to determine which volcano is its source, while for the ones in ocean sediments multiple nearby volcanoes could be the source. This project aims to apply **machine learning** models to determine the source volcanoes of ash layers based on their chemical composition, using the data from on land samples as the ground truth.

EXPERIENCE

Nov 2021 – Apr 2025 PhD researcher in Applied Mathematics
[GEOMAR/University of Kiel](#)

Title: *New statistical techniques for the analysis of eruption data*

This project is part of the [MarDATA School for Marine Data Science](#). The first goal was to **understand the research questions from volcanology specialists**, and **mathematically formalize the problem**.

We then developed **statistical models and tests** for the relation between climate history and the occurrence of volcanic eruptions. These procedures were implemented in the package [PointProcessTools.jl](#) for the **Julia programming language**.

The research resulted in three original papers (to be published) in collaboration with researchers from GEOMAR, the University of Kiel and JAMSTEC (Japan), as well as presentations in international conferences in Italy, USA and Germany.

EDUCATION

2018 – 2020 Master studies in Mathematics
[ICMC, University of São Paulo](#)

2014 – 2017 Bachelor studies in Mathematics
[ICMC, University of São Paulo](#)

AWARDS

2014/2015/2016/2017 Academic highlight for best grades in class

TEACHING

2016 Introduction to Game Theory (16 hours)

2015 Mini-course in General Topology (16 hours)

SIDE PROJECTS

TPP notebooks Interactive notebooks for goodness-of-fit testing and frequency analysis of temporal point processes.

HTTP Server A simple HTTP server for APIs with plain text and JSON requests.

IQSolver An algorithm for solving the game [IQ Puzzler Pro](#) implemented in Julia.

Neural network Minimal implementation of neural networks from the ground up in Python.