Linking subduction parameters to the occurrence of slow-slip events (SSEs) using machine learning on a global scale Mario Arroyo-Solórzano^{1,2}, Lucas Crisosto¹, Jorge Jara¹, Álvaro González^{3,1} and Fabrice Cotton^{1,2}





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- most correctly (Accuracy)

- Log. Regression and XGBoost





- Future work will include evaluating the continuum **spectrum between slow** and fast ruptures behavior.
- Complementary datasets (e.g., Low-Frequency earthquakes, swarms, repeaters) will enhance SSE potential assessment and model robustness/validation.

Aknowledgment:

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- Nonlinear relationships dominate, reinforcing the relevance of machine
- learning (ML) approaches for understanding complex SSE patterns. - Model outputs enable logic-based inference, guiding interpretations and future monitoring strategies.

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