

EGU21-13406

<https://doi.org/10.5194/egusphere-egu21-13406>

EGU General Assembly 2021

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



Harmonic fluctuations in the relative paleointensity data?

Marcia Ernesto, Thamyris Britto, and George Caminha-Maciel

Universidade de Sao Paulo, Instituto de Astronomia, Geofísica e Ciências Atmosféricas, Geophysics, Sao Paulo, Brazil
(mernesto@usp.br)

The existing relative paleointensity (RPI) database allowed the construction of reliable stacking curves for at least the last 1 Myr. Observed fluctuations in the RPI curves suggest both lithologic/climatic influence or geodynamo processes. Stacked power spectra for RPI data from ten North and South Atlantic cores revealed a spectral peak at ~5.3kyr for data covering the last 100 kyr. This signal exhibits a similar phase for most of the series. The observed spectral peak has no apparent correspondence in the benthic O^{18} spectra from the same cores, suggesting the RPI signal is free from the climatic influence. Therefore, it may be a real geodynamo feature.