



The statistical properties of paleomagnetic reversals: measurements and models

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The spontaneous reversals of the geomagnetic field have recently been shown to owe clustering properties. Poisson-like statistics (including non-stationary renewal processes) is indeed unable to describe some statistical properties observed in the data. Such statistical properties are thus used here to test some numerical models currently adopted to reproduce the geodynamo effect. Moreover, the model's parameters can be tuned in order to reproduce with the simulated reversals the same degree of deviation from Poisson statistics observed on the real data.