

HOW DIFFERENT IS THE TIME-AVERAGED FIELD FROM THAT OF GEOCENTRIC AXIAL DIPOLE?

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It is well known that the geometry of the recent time-averaged paleomagnetic field (TAF) is very close to that of a geocentric axial dipole (GAD). The minor departures from the GAD non-linear directional data are sensitive not only to the time-averaged component of the field, but also to its time fluctuating component, known as the paleosecular variation (PSV). The traditional way in which most such TAF models are recovered uses an empirical estimate for PSV. I will report on a new way to recover the TAF, using various statistical tools recently made available. This new approach confirms that optimum values fully consistent with the data can be found. Recently published Brunhes paleomagnetic directional data show that significant additional terms, in particular quadrupolar and octupolar zonal terms, likely contribute