



On the Geomagnetic Jerk of 2003

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Evidence for the occurrence of a geomagnetic jerk around 2003 has been found in magnetic ground and satellite data, and is also supported by observations of the length-of-day variation.

We report on the jerk as seen in an updated version of the CHAOS magnetic field model, in CHAMP satellite derived monthly means at "virtual observatories" in space, and in ground-based magnetic observatory data.

We show that the 2003 geomagnetic jerk is not worldwide in occurrence, and present a possible mechanism consistent with the observed correlation between the jerk and the length-of-day variation.