

Semi-Automated Detection of Geomagnetic Jerks by using Spline Function --- Distribution of 1991 Geomagnetic Jerk---

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The geomagnetic jerks are defined as sudden changes in the geomagnetic secular variation, and believed to occur around 1969, 1978, and 1991. Their origins and distributions are still controversial. In this study, we identify them semi-automatically using the second-order spline function with variable number and positions of knots. The number and positions of knots are evaluated by the Akaike Information Criterion (AIC). The 1969 and 1978 jerks are confirmed to be global phenomena, the 1991 one, however, distributes only in the European area. This result is inconsistent with De Michelis et al.[1998].