

## Numerical Conversion of Analog Magnetograms to High-resolution Geomagnetic Digital Data

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Geomagnetic observatories all over the world have recorded geomagnetic observation results onto photographic papers. But most of long-term geomagnetic observation results recorded as analog magnetograms have not yet been fully digitized. We developed a method to automatically convert analog magnetograms to high-time-resolution digital data. We applied our method to the observation records of Kakioka Magnetic Observatory (KMO) and confirmed that the resolution of time and amplitude could be greatly improved by numerical conversion compared with conventional data conversion by hand scaling. We have started numerical conversion of long-term analog magnetograms at KMO using this method.

Keywords: geomagnetism, digitization, magnetogram