

Corrigendum

Hapgood, M. A. (1992) **Space Physics coordinate transformations: a user guide**. *Planetary and Space Science* **40**, 711.

Hapgood (1992) has given a comprehensive description of the transformations between the major coordinate systems in use in Space Physics. That paper included formulae which specified the orientation of the (centred) geomagnetic dipole axis in a time-dependent way using the International Geomagnetic Reference Field (IGRF). Recent work has exposed a minor error in one of the formulae used in that specification.

The error is in equation 9 of Hapgood (1992), which specifies the latitude of the dipole North geomagnetic pole. The arcsine term in that equation must be replaced by an arctangent.

This trigonometric function applies to the co-latitude of the geomagnetic pole, which is around 11° . Thus, in numerical terms, the correction is small because the sine and tangent functions have similar values at such small angles. The effect of the correction is to shift the pole about 0.2° northward of the position given by the incorrect formula.

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