

## **REGIONAL MODELING OF THE SOUTHERN AFRICAN SECULAR VARIATION**

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Over the Southern African continent the geomagnetic field is weaker and changes more rapidly compared to other regions of the Earth. For this area series of geomagnetic field measurements exist since the 1950s. This unique data set allows us to obtain a detailed view of the geomagnetic field behavior in space and time by building a regional model. The data set consisting of repeat station surveys and observatory annual means is thoroughly cleaned by eliminating jumps and estimating external contributions in the original time series. Following the method proposed by Shure et. al. (1982) we use a system of representation similar to the harmonic splines. The technique has systematically been tested on synthetic data. The model derived from the available data covers the time span from 1960 to 2002 and gives a detailed view of the dramatical changes of the geomagnetic field in this region, including several geomagnetic jerks.

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