



Automatic digitization of SMA data

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In the 1970's and 1980's the Scandinavian Magnetometer Array produced large amounts of excellent data from over 30 stations in Norway, Sweden and Finland. 620 film reels and 20 kilometers of film have been preserved and the longest time series produced in the campaign span almost uninterrupted for five years, but the data has never seen widespread use due to the choice of medium. Film is a difficult medium to digitize efficiently. Previously events of interest were searched for by hand and digitization was done by projecting the film on paper and plotting it by hand.

We propose a method of automatically digitizing geomagnetic data stored on film and extracting the numerical values from the digitized data. The automatic digitization process helps in preserving old, valuable data that might otherwise go unused.