

# 外部磁場について (概報)

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## External Field of Geomagnetism\*

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### ABSTRACT

In order to investigate the external field of earth magnetism, the magnetic potentials uniformly magnetized are expanded using the annual values (1922—36) at the magnetic observatories in the world. The coefficients of potential show note worthy correspondence with the relative numbers of sunspots, but the amplitudes in a solar cycle are only 10 gamma or more. On the other hand, the electron densities are reported to change by amount of about 50% in F<sub>2</sub> layer in which the external field may be probably produced on account of low collisional frequency.

From these results, the external field cannot be produced at least in F<sub>2</sub> layer or below in the ionosphere.

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\* The full paper will be published in near future.