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Significance of Fritz's isochasms deduced from the numerical auroral oval model

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We have examined the significance of historical Fritz's isochasms, i.e., lines where the aurora occurs with equal frequency, by using the numerical aurora oval model which we have developed recently. In some meridians our output is in remarkably good agreement with Fritz's distribution, but there is systematic deviation in other meridians. We discuss these results, and show the significance of Fritz's result considering the Earth's magnetic field in the 1800s.

Keywords: auroral oval, numerical model, historical observations