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# Geomagnetically Induced Currents: an introduction

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## Résumé

The single most dangerous threat from space weather to human infrastructure are so called "*Geomagnetically Induced Currents*" short GICs. They are caused by fast changes in the magnetic disturbance fields caused by sudden set-up or re-organisation

of large magnetospheric or ionospheric current systems. According to Faraday's Law a fast change in the magnetic field

induces an electric field, which in turn can induce currents in any conductor, which is oriented in the direction of the electric

field.

This introductory talk aims to present the basic physics at the origin of these currents and the industrial infrastructures that can be damaged by such currents

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