

# **The Earth climate and life evolution response to cosmic radiation enhancement arising from reversals and excursions of geomagnetic field.**

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Climate abrupt warming as well as biologic evolutionary events, in respect to fauna and human evolution, are shown to originate during reversals and excursions of geomagnetic field, when the geomagnetic field loses a lot in its module value and consequently in its protective characteristics, making galactic cosmic rays (GCR) and solar protons penetration into the Earth atmosphere possible. Usually preceded by climate cooling and populations reduction reversals and excursions stimulate evolutionary genetic mutations generated by intense radiation and climate abrupt warming resulted from destruction of stratospheric aerosols by GCR. Favorable environment conditions on new features and species origin. For example, it was Gauss-Matuyama reversal (2.3 Myr) to make for Hominid evolutionary mutations and for distinctly new species, *Homo erectus*, origin. The evolutionary events and climate shifts appear explicable on the context of the fundamentally new model of the geomagnetic field generation, based on hypothesis of the “hot” Earth, and the theory of the Earth magnetic poles drift throughout reversals and excursions theory.