

Effects of the inner-core size on geodynamo

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We have examined an MHD dynamo behavior in a rotating spherical shell through numerical calculation. It has been found that columnar convection cells parallel to the rotation axis play an important role in geodynamo. We examine possible effects of a growing inner core on geodynamo. So far we have assumed that the inner core is non-conducting for the sake of computation. As a result, we found that small-scale structures tend to dominate as the inner core grows, as expected