

A Model-based Way of Searching for Weak Planetary Dynamos

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Abstract

Determining the upper limits to dynamo related fields at the weakly magnetized planets is subject to challenges produced by the typically stronger fields from the external plasma interaction. The induced fields are often expected to have zero time averages (at least in the solar wind) provided orbital sampling is long enough. However, there are many variations in these fields that complicate the process. In addition, it may be that any weak

internal field signature is more identifiable at locations other than periapsis where ionospheric and body-related induced currents are strongest. We use BATS-R-US MHD models of the Venus-solar wind interaction with and without weak internal dipole fields to illustrate these issues, and then apply what we learn to Venus data sets from PVO and VEX observations.

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Column 1	Column 2	Column 3
Line 1	Line 1	Line 1
Line 2	Line 2	Line 2
Line 3	Line 3	Line 3
Line 4	Line 4	Line 4
Line 5	Line 5	Line 5
Line 6	Line 6	Line 6
Line 7	Line 7	Line 7
Line 8	Line 8	Line 8
Line 9	Line 9	Line 9
Line 10	Line 10	Line 10
Line 11	Line 11	Line 11

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$$a^2 + b^2 = c^2 \quad (1)$$

$$E = m \cdot c^2 \quad (2)$$

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Acknowledgements

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References

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