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Interactive comment on ""Earth-like" planetary magnetotails as non-linear oscillators" *by* Robert J. Burston

Anonymous Referee #1

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In your paper, you actually just used a set of artificial parameters to calculate the movement of a mechanical of spring based on Eqs. (1-3), and argue that your calculation can qualitatively represent the dynamics of magnetotail to separate drivers for the Dungey and Vasyliunas Cycles, and describe the detachment of plasmoid. Unfortunately, nothing about the planetary magnetotail is involved in you calculation, although you mentioned the possible applications in Earth and planets in subsection 4.1 and 4.2. If I were you, I would input the typical parameters of planetary magnetotail into your model(are equivelent spring parameters easy derived?) to run the dynamics of spring analogue, and compare the output with some space simulations to illustrate the validity and reasonability of the spring model. Anyway, the current manuscript is too premature to be published.

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Discussion paper

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