Using the following model for the magnetic field:

Where

|  |  |
| --- | --- |
| **Parameter** | **Value** |
|  | 1 m |
|  | 10 |
|  | 1 MA |
|  | 1 |

For this set-up, the solver diverges as shown in the following graphs:

A close up of text on a white background

Description automatically generatedA picture containing text

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA close up of a person

Description automatically generatedA screenshot of a cell phone

Description automatically generated

Honestly, I’m not sure flux compression is a valid assumption here. Faraday’s law says:

Where is the electromotive force (the voltage) developed in the seed coils. If flux is conserved, then and there is by definition no voltage. I tried to ameliorate this by using

But the solve also diverged, as shown in the graphs below

A close up of a mans face

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA close up of a piece of paper

Description automatically generated