

# **Advitiy - Tether simulations**

Pavan R Hebbar, Tanya Choudhary, Anuj Kuruwa

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## 1 Introduction:

This document deals with day to day work on simulations of satellite deorbiting.

## 2 Setting $B = 0$ :

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Simulation was tried with magnetic field set to zero. Theta and phi results were as expected. Graph of  $r$  is yet to explain. Though the changes in  $r$  are very small (  $O(10^{-8})$  ), it would be expected that the initial point would be an apogee or a perigee. Therefore simulation was performed again to get a graph of  $\dot{r}$  (checkout the *debugging<sub>r</sub>* branch)