Khurana Jupiter Current Sheet Structure Model 2022 FORTRAN User Guide

Description

The program calculates the current sheet structure at Jupiter at a particular point in space and time.

Instructions

Call the Fortran subroutine `csheet_struc` with the input parameters of the desired location in space, given seperately as `R`, `theta`, `phi` in System III coordinates, and `XJSO` and `YJSO` in Jupiter-Sun-Orbit coordinates, as well as time argument `ctime` in UNIX time. The output is `ZNS3`, the height of the current sheet in System III.

Main Fortran Subroutine

``` Fortran
SUBROUTINE csheet_struc(ZNS3,R,theta,phi,XJSO,YJSO,ctime)
```
```
Arguments:
        INPUT:  R,theta,phi : position in System III
                XJSO,YJSO   : position in JSO
                ctime       : UNIX time
     OUTPUT: ZNS3           : height of the current sheet in System III
```

Other Useful Information
Helpful information on the Jupiter coordinate systems, such as System III and JSO:
https://lasp.colorado.edu/home/mop/files/2015/02/CoOrd_systems7.pdf
F. Bagenal & R. J. Wilson, LASP – University of Colorado

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