

[JGR Space Physics]

Supporting Information for

[Shocklet structure of very high- β Earth bow shocks]

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Contents of this file

1. Captions to Tables S1 to S4
2. Caption to Dataset

Additional Supporting Information (Files uploaded separately)

Tables S1 to S4 in a single TableS1234.xls file
Dataset of Interball-tail data in a single Table_IBT.xlsx file

Introduction

Supporting information includes

1. four tables with the lists of bow shock crossings. Tables are included as a single separate Excel file, with four sheets, named Table S1 to Table S4.
2. Dataset for Interball-Tail shock crossing (see table S1) as Table_IBT.xlsx file. Dataset will be uploaded to public repository after acceptance.

CAPTIONS

Table S1.List of shock crossings with very high $\beta > 30$

Table caption

A	Spacecraft name
B	Code of observation type (see sec 4)
C	year
D	month
E	date
F	UT interval
G	Crossing UT
H	Spacecraft coordinates, R_E
I	OMNI β , var 1 (nearest to crossing time 1-min value)
J	OMNI β , var 2 (12-min average around crossing time)
K	local β
L	OMNI magnetic magnitude, var 1
M	OMNI magnetic magnitude, var 2
N	local magnetic magnitude
O	OMNI magnetic vector, var 1
P	local magnetic vector
Q	UT interval for local values calculation
R	OMNI V_x component of solar wind speed
S	OMNI ion density
T	OMNI ion temperature
U	Model shock normal
V	Angle between OMNI magnetic field and shock normal
W	Spacecraft separation vector for C2-C1 (MMS2-MMS1, THE-THD)
X	Spacecraft separation vector for C3-C1 (MMS3-MMS1, THA-THD)
Y	Spacecraft separation vector for C4-C1 (MMS4-MMS1)

Table S2.

List of shock crossings by MMS spacecraft

Table caption

A	Spacecraft name
B	Code of observation type (see sec 4)
C	year
D	month
E	date
F	UT interval
G	Crossing UT
H	Spacecraft coordinates, R_E
I	OMNI β , var 1 (nearest to crossing time 1-min value)
J	OMNI magnetic magnitude, var 1
K	OMNI magnetic vector, var 1

L	OMNI V _x component of solar wind speed
M	OMNI ion density
N	OMNI ion temperature
O	Model shock normal
P	Angle between OMNI magnetic field and shock normal
Q	Spacecraft separation vector for MMS2-MMS1
R	Spacecraft separation vector for MMS3-MMS1
S	Spacecraft separation vector for MMS4-MMS1

Table S3.

List of shock crossings by Geotail spacecraft

Table caption

A	Spacecraft name
B	Code of observation type (see sec 4)
C	year
D	month
E	date
F	UT interval
G	Crossing UT
H	Spacecraft coordinates, R _E
I	OMNI β , var 1 (nearest to crossing time 1-min value)
J	OMNI magnetic magnitude, var 1
K	OMNI magnetic vector, var 1
L	OMNI V _x component of solar wind speed
M	OMNI ion density
N	OMNI ion temperature
O	Model shock normal
P	Angle between OMNI magnetic field and shock normal

Table S3.

List of shock crossings by Cluster spacecraft from PCS19

Table caption

A	Spacecraft name
B	Code of observation type (see sec 4)
C	year
D	month
E	date
F	UT interval
G	Crossing UT
H	Spacecraft coordinates, R _E
I	OMNI β , var 1 (nearest to crossing time 1-min value)
J	OMNI magnetic magnitude, var 1

K	OMNI magnetic vector, var 1
L	OMNI Vx component of solar wind speed
M	OMNI ion density
N	OMNI ion temperature
O	Model shock normal
P	Angle between OMNI magnetic field and shock normal
Q	Spacecraft separation vector for C2-C1
R	Spacecraft separation vector for C3-C1
S	Spacecraft separation vector for C4-C1

Table IBT

Magnetic field for Interball-Tail shock crossing

Table caption

A	year
B	month
C	date
D	hour
E	min
F	sec
G	Bx GSE , nT
H	By GSE , nT
I	Bz GSE , nT