



I-01



COR 2

1  
00:00:08,710 --> 00:00:06,950  
my name is angelus vulidas and i'm the

2  
00:00:11,270 --> 00:00:08,720  
project scientist for the shaky

3  
00:00:13,430 --> 00:00:11,280  
instrument suite on stereo a coronal

4  
00:00:15,030 --> 00:00:13,440  
mass ejection is an explosion of the

5  
00:00:17,269 --> 00:00:15,040  
sun's atmosphere that propagates in

6  
00:00:19,429 --> 00:00:17,279  
space in the form of a cloud

7  
00:00:22,390 --> 00:00:19,439  
they can really disrupt satellite

8  
00:00:25,109 --> 00:00:22,400  
communications they can affect gps

9  
00:00:27,830 --> 00:00:25,119  
signals or cell phones and even cause

10  
00:00:30,550 --> 00:00:27,840  
electricity disruptions

11  
00:00:33,190 --> 00:00:30,560  
so the stereo satellites

12  
00:00:34,790 --> 00:00:33,200  
is a mission specifically to study the

13  
00:00:36,630 --> 00:00:34,800

quantum mass ejections using two

14

00:00:38,630 --> 00:00:36,640

identical spacecraft so we can

15

00:00:41,270 --> 00:00:38,640

reconstruct the three-dimensional

16

00:00:43,830 --> 00:00:41,280

structure of these clouds the use of a

17

00:00:46,790 --> 00:00:43,840

single spacecraft is similar to seeing

18

00:00:49,190 --> 00:00:46,800

the wall with one eye you suddenly lack

19

00:00:50,869 --> 00:00:49,200

perception of depth and we never know if

20

00:00:54,069 --> 00:00:50,879

the object for example is coming towards

21

00:00:56,950 --> 00:00:54,079

us going away from us by injecting the

22

00:00:58,790 --> 00:00:56,960

second viewpoint then suddenly you run

23

00:01:01,270 --> 00:00:58,800

out of solutions and you you have a very

24

00:01:04,869 --> 00:01:01,280

limited number of models to choose from

25

00:01:07,910 --> 00:01:04,879

so this uh the shape of cme seems to to

26

00:01:10,310 --> 00:01:07,920

be similar to a french croissant only

27

00:01:12,070 --> 00:01:10,320

instead of be comprised of

28

00:01:13,109 --> 00:01:12,080

pastries comprised of magnetic field

29

00:01:14,950 --> 00:01:13,119

lines

30

00:01:16,630 --> 00:01:14,960

we basically have moved

31

00:01:19,030 --> 00:01:16,640

halfway towards

32

00:01:20,310 --> 00:01:19,040

the solving solving the problem at least

33

00:01:23,350 --> 00:01:20,320

in a practical

34

00:01:25,429 --> 00:01:23,360

manner by modeling and getting a ground

35

00:01:28,310 --> 00:01:25,439

truth on the shape and the energy on the

36

00:01:30,069 --> 00:01:28,320

cme can make better predictions of when