



1
00:00:21,950 --> 00:00:19,490
the cosmic infrared background

2
00:00:23,960 --> 00:00:21,960
experiment shortened to cyber is a

3
00:00:26,150 --> 00:00:23,970
series of four rocket measurements

4
00:00:30,550 --> 00:00:26,160
designed to improve our understanding of

5
00:00:35,060 --> 00:00:33,380
cyber has measured unexpectedly bright

6
00:00:37,549 --> 00:00:35,070
irregularities in the glow at the

7
00:00:39,319 --> 00:00:37,559
shortest infrared wavelengths which we

8
00:00:42,020 --> 00:00:39,329
interpret to be due to stars tossed out

9
00:00:44,690 --> 00:00:42,030
during the assembly of galaxies during

10
00:00:46,069 --> 00:00:44,700
this process some stars are flung far

11
00:00:47,450 --> 00:00:46,079
from the galaxies and are no longer

12
00:00:49,400 --> 00:00:47,460
strongly associated with them as

13
00:00:52,729 --> 00:00:49,410

highlighted by the solo movie yellow

14

00:00:55,580 --> 00:00:52,739

regions as the two galaxies continue to

15

00:00:57,920 --> 00:00:55,590

interact forming a larger galaxy more

16

00:01:01,819 --> 00:00:57,930

stars are lost and regions far from the

17

00:01:03,889 --> 00:01:01,829

host galaxies begin to light up over

18

00:01:06,410 --> 00:01:03,899

time the lost stars move on random

19

00:01:08,990 --> 00:01:06,420

orbits and fill in a huge halo around

20

00:01:11,570 --> 00:01:09,000

the central galaxy as we zoom out

21

00:01:13,700 --> 00:01:11,580

showing more galaxies we see that a

22

00:01:16,640 --> 00:01:13,710

similar process occurs throughout the

23

00:01:18,679 --> 00:01:16,650

universe in the cyber result we isolate

24

00:01:20,600 --> 00:01:18,689

the large faint halo light which appears

25

00:01:23,990 --> 00:01:20,610

in the real data as fluctuations of

26

00:01:25,520 --> 00:01:24,000

large scales these images suggest there

27

00:01:27,740 --> 00:01:25,530

may be as much light in the vast spaces

28

00:01:29,270 --> 00:01:27,750

between galaxies as in the galaxies