

1
00:00:00,000 --> 00:00:03,928
my name is Lauren poyo and I'm an

2
00:00:02,399 --> 00:00:06,599
astronomer at the Space Telescope

3
00:00:03,928 --> 00:00:08,849
Science Institute I did my undergraduate

4
00:00:06,599 --> 00:00:11,580
economic barrier in cash or in France

5
00:00:08,849 --> 00:00:15,019
and then i went for Princeton for

6
00:00:11,580 --> 00:00:18,778
graduate school I do research on

7
00:00:15,019 --> 00:00:21,839
exoplanets taking a picture of planets

8
00:00:18,778 --> 00:00:23,100
next to a nearby star you have a star

9
00:00:21,839 --> 00:00:25,890
that's 10 billion times brighter than

10
00:00:23,100 --> 00:00:27,510
the planet both the light of the star in

11
00:00:25,890 --> 00:00:29,189
the plant get into your telescope what

12
00:00:27,510 --> 00:00:30,990
you need to use is an optical device

13
00:00:29,189 --> 00:00:33,659
that's called the corner breath it's

14
00:00:30,989 --> 00:00:36,269
just a filter but it's very clever

15
00:00:33,659 --> 00:00:38,849
filled that's able to make the

16
00:00:36,270 --> 00:00:41,940
difference between starlight and planet

17
00:00:38,850 --> 00:00:44,730
like in terms of coronal graph design

18
00:00:41,939 --> 00:00:48,509
themselves I would say two or three

19
00:00:44,729 --> 00:00:52,259
years ago all we really do well is when

20
00:00:48,509 --> 00:00:55,289
the telescope looks like a big circle we

21
00:00:52,259 --> 00:00:56,488
had no idea how to design them for phila

22
00:00:55,289 --> 00:00:58,410
scopes are a little more complicated

23
00:00:56,488 --> 00:01:01,649
like the James Webb with all these exams

24
00:00:58,409 --> 00:01:03,718
and stuff and I've put out a few ideas

25
00:01:01,649 --> 00:01:06,118
on how to do it it turns out you don't

26
00:01:03,719 --> 00:01:09,118
need a circle you can have any telescope

27
00:01:06,118 --> 00:01:11,099
design we think that it's going to

28
00:01:09,118 --> 00:01:13,469
enable us to launch much bigger

29

00:01:11,099 --> 00:01:15,390
apertures in space so by aperture we

30
00:01:13,469 --> 00:01:17,569
mean like the size of the of the big

31
00:01:15,390 --> 00:01:19,579
mirror

32
00:01:17,569 --> 00:01:22,158
I think it's great long got this award

33
00:01:19,579 --> 00:01:23,599
he's a very bright young scientist and

34
00:01:22,159 --> 00:01:26,270
he's working on an extremely difficult

35
00:01:23,599 --> 00:01:28,759
task and the work he's done will help

36
00:01:26,269 --> 00:01:30,799
pave the way to build future space

37
00:01:28,760 --> 00:01:33,469
telescopes to observe planets that look

38
00:01:30,799 --> 00:01:37,670
like the news I was so excited here that

39
00:01:33,469 --> 00:01:39,920
Laurent won this prize Moreau is so

40
00:01:37,670 --> 00:01:42,590
energetic and enthusiastic about his

41
00:01:39,920 --> 00:01:45,439
work and he's already made contributions

42
00:01:42,590 --> 00:01:49,368
to discovery and characterization of

43
00:01:45,439 --> 00:01:52,459

giant planets around young stars I like

44

00:01:49,368 --> 00:01:56,780

to build stuff I was illegal kind of kid

45

00:01:52,459 --> 00:01:58,129

I kind of some point realize that I want

46

00:01:56,780 --> 00:02:01,159

to build something that that I was like

47

00:01:58,129 --> 00:02:03,769

some greater purpose not sweater

48

00:02:01,159 --> 00:02:06,109

purposes of course to detect the planet

49

00:02:03,769 --> 00:02:07,339

that looks like birth it's one of the

50

00:02:06,109 --> 00:02:09,610

biggest question in the history of

51

00:02:07,340 --> 00:02:09,610

mankind