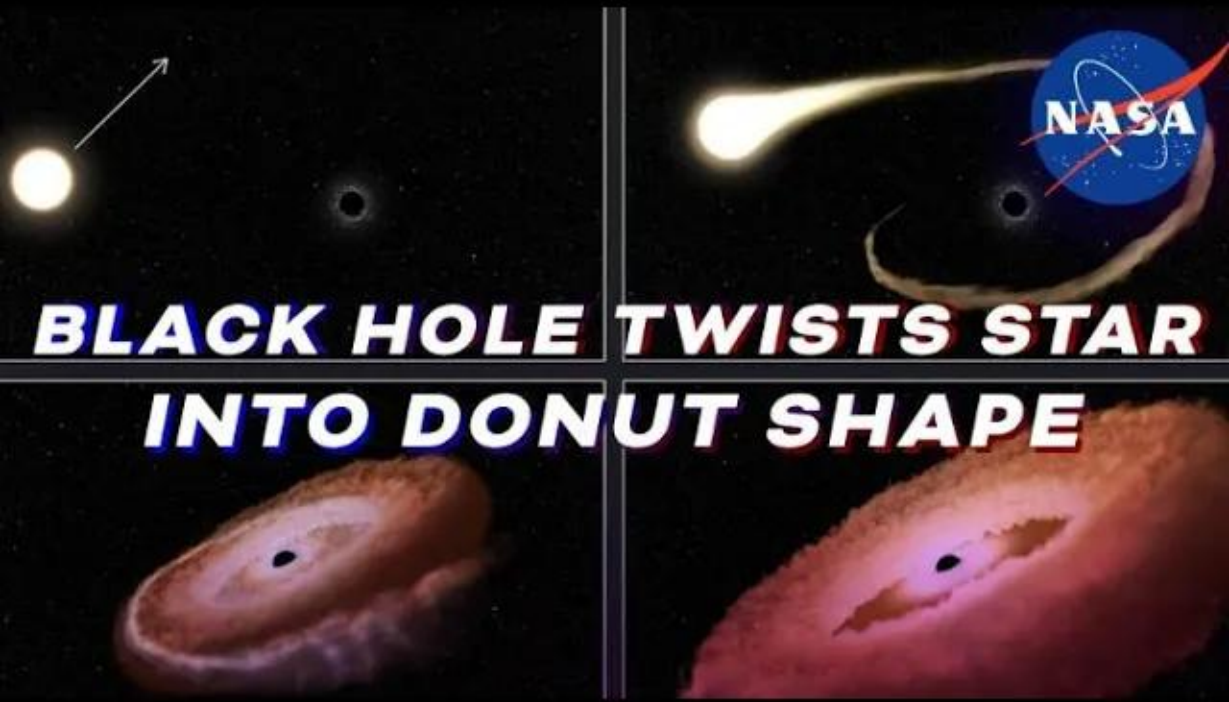
NASA
BLACK HOLE TWISTS STAR
INTO DONUT SHAPE

1
00:00:05,090 --> 00:00:02,510
astronomers using NASA's Hubble Space

2
00:00:07,610 --> 00:00:05,100
Telescope have recorded a star's final

3
00:00:10,490 --> 00:00:07,620
moments in detail as it was ripped apart

4
00:00:12,530 --> 00:00:10,500
and eaten up by a black hole in a tidal

5
00:00:15,410 --> 00:00:12,540
disruption event

6
00:00:17,870 --> 00:00:15,420
the shredded star is nearly 300 million

7
00:00:19,790 --> 00:00:17,880
light years away but astronomers used

8
00:00:22,370 --> 00:00:19,800
Hubble's powerful ultraviolet

9
00:00:24,529 --> 00:00:22,380
sensitivity to analyze its light to

10
00:00:25,490 --> 00:00:24,539
gather forensic clues of the violent

11
00:00:28,269 --> 00:00:25,500
event

12
00:00:31,310 --> 00:00:28,279
Hubble data found a very bright hot

13
00:00:33,770 --> 00:00:31,320

donut-shaped area of gas the size of the

14
00:00:38,030 --> 00:00:33,780
solar system swirling around a black

15
00:00:40,670 --> 00:00:38,040
hole the swirling gas was once a star

16
00:00:42,650 --> 00:00:40,680
usually astronomers get just a few

17
00:00:44,690 --> 00:00:42,660
observations at the beginning of A

18
00:00:47,330 --> 00:00:44,700
disruption event when it's very bright

19
00:00:49,910 --> 00:00:47,340
but this energetic collision's proximity

20
00:00:52,369 --> 00:00:49,920
and brightness allowed Hubble to gather

21
00:00:54,529 --> 00:00:52,379
ultraviolet data over a longer than

22
00:00:56,750 --> 00:00:54,539
normal time period

23
00:00:59,209 --> 00:00:56,760
this is a rare opportunity for

24
00:01:01,850 --> 00:00:59,219
scientists to create models of what they

25
00:01:04,310 --> 00:01:01,860
think is going on and then compare those

26
00:01:06,830 --> 00:01:04,320
models with what Hubble sees

27
00:01:09,770 --> 00:01:06,840
it is an exciting place for scientists