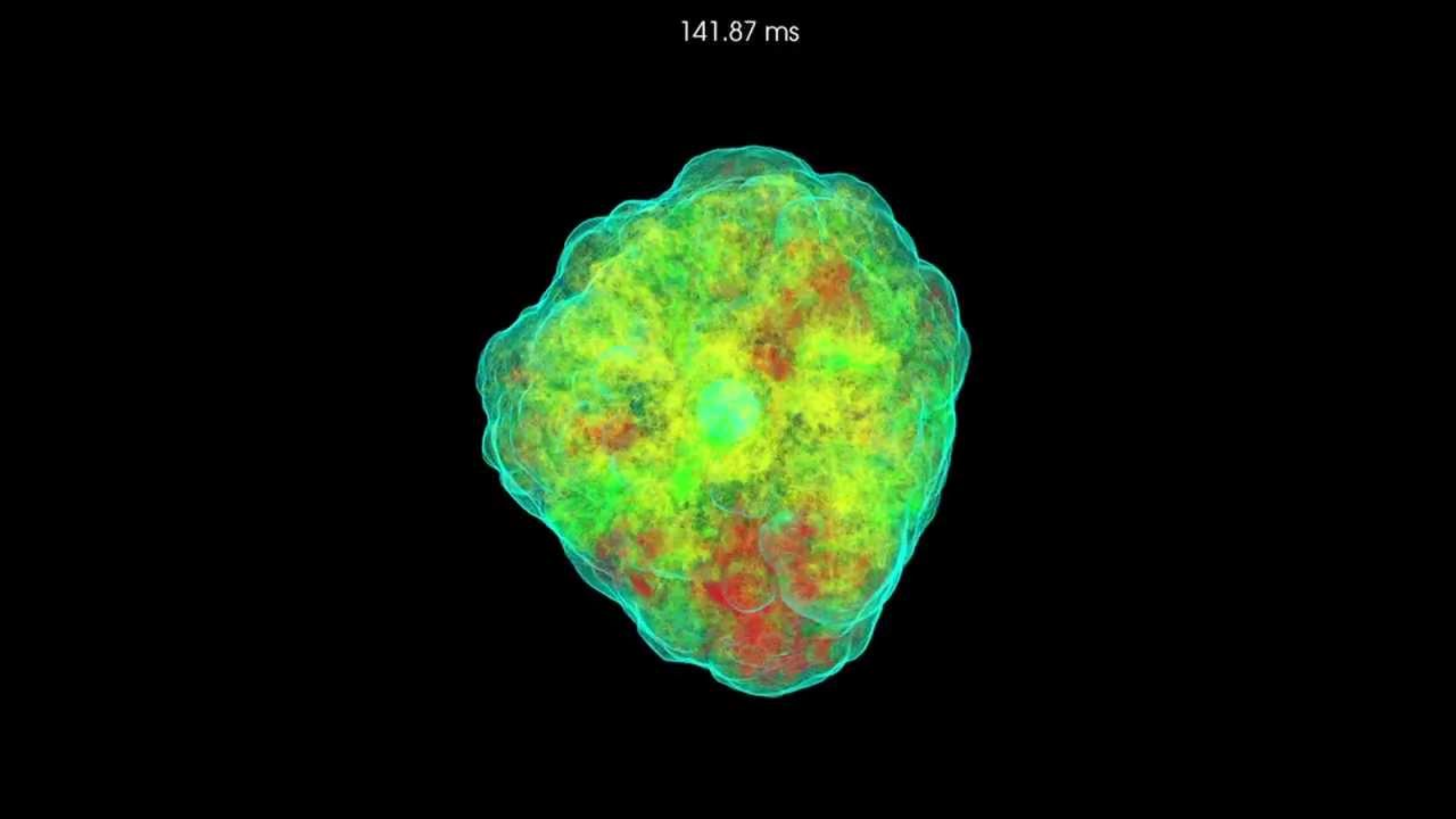
141.87 ms

1
00:00:14,810 --> 00:00:12,960
NuStar is untangling the mystery of how

2
00:00:16,760 --> 00:00:14,820
stars explode

3
00:00:18,890 --> 00:00:16,770
here we're looking at a simulation of a

4
00:00:21,380 --> 00:00:18,900
supernova explosion the massive star

5
00:00:23,510 --> 00:00:21,390
that's collapsing in on itself shown in

6
00:00:26,569 --> 00:00:23,520
color is a temperature of the gas as the

7
00:00:28,490 --> 00:00:26,579
stars exploding what happens is that hot

8
00:00:30,200 --> 00:00:28,500
bubbles at the center of the core blast

9
00:00:33,350 --> 00:00:30,210
out through the shock wave ripping the

10
00:00:34,939 --> 00:00:33,360
star apart this leaves behind a pattern

11
00:00:37,520 --> 00:00:34,949
of radioactive ash that new star can

12
00:00:39,740 --> 00:00:37,530
observe hundreds of years later what was

13
00:00:41,030 --> 00:00:39,750

interesting about the data was that it

14
00:00:43,700 --> 00:00:41,040
didn't look anything like any of the

15
00:00:44,689 --> 00:00:43,710
models we expected before launch this is

16
00:00:46,700 --> 00:00:44,699
actually a very good reason why you

17
00:00:49,279 --> 00:00:46,710
build instruments and try to go into new

18
00:00:50,600 --> 00:00:49,289
energy bands to get new discovery space