

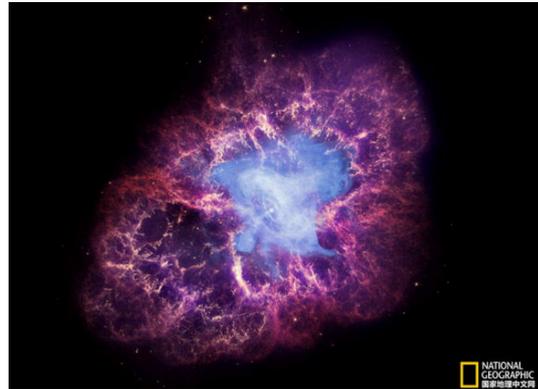
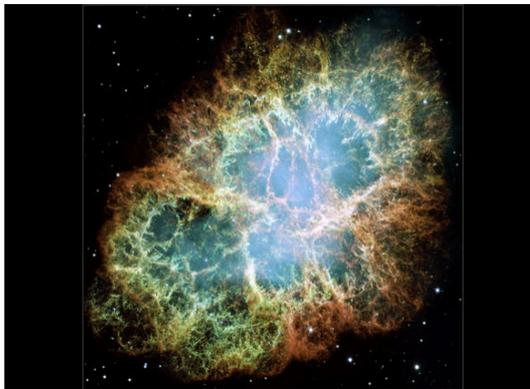
# The Formation Mechanism of the Crab Nebula

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Abstract: giving an explanation regard to the formation mechanism of the Crab Nebula

## Main viewpoints and conclusions:



The Crab Nebula (M1, NGC 1952, Taurus A), is a pulsar wind nebula in the constellation of Taurus.<sup>[1]</sup>

According to and integrating the related research results, <sup>[2][3][4][5]</sup> a conclusion could be obtained: the Crab Nebula was formed by the decay of a Neutron star (a Black-hole; neutrons cluster), and the details of the formation process is:

a Neutron star (a Black hole; Neutron clusters)  $\rightarrow$  a Pulsar (an unstable nuclei) +  $P(H^+)$  +  $\alpha(He^+)$  +  $\gamma(\nu)$  +  $X(e^-)$  = the Crab Nebula.

## References

[1] *The Crab Nebula*

[https://en.wikipedia.org/wiki/Crab\\_Nebula](https://en.wikipedia.org/wiki/Crab_Nebula)

[2] *Hitomi spacecraft to enable unprecedented views of the violent universe*

<http://phys.org/news/2016-02-hitomi-spacecraft-enable-unprecedented-views.html>

[3] *Astroparticle Physics Italian Style*

<http://physics.aps.org/articles/v8/96>

[4] *Galaxy star birth regulated by black-hole fountain*

<https://www.sciencedaily.com/releases/2015/08/150806144657.htm>

[5] *Black-holes' Innate Character and Feature*

<http://rxiv.org/abs/1608.0177>