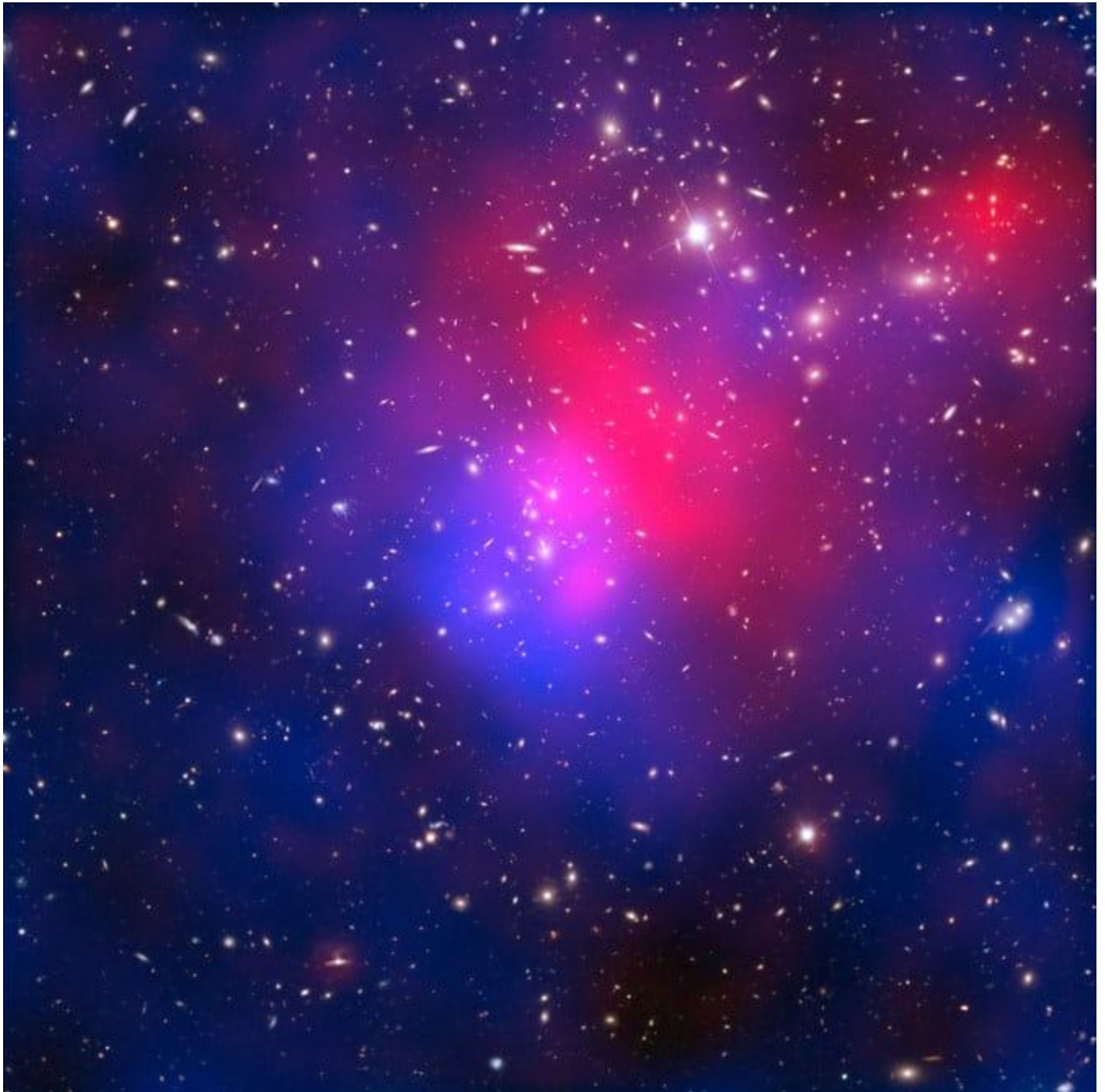


What is Pandora's Cluster (Abell 2744)?

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About Pandora's Cluster (Abell 2744):

- It is a **giant galaxy cluster**.

- It appears to be the **result of a simultaneous pile-up of at least four separate, smaller galaxy clusters.**
- The **crash took place** over a **span of 350 million years.**
- The **galaxies** in the cluster **make up less than five percent of its mass.**
- **The gas (around 20 percent)** is **so hot** that it **shines only in X-rays.**
- **Dark matter** makes up around **75 percent of the cluster's mass.**
- It is located around **4 billion light years from earth.**

What are Galaxy clusters?

- They are the **largest objects in the universe that are held together by their own gravity.**
- They **contain hundreds or thousands of galaxies**, lots of **hot plasma**, and a **large amount of invisible dark matter.**
- Galaxy clusters are **home to the biggest galaxies in the known universe** and provide us with information about the structure of the universe on the largest scales.

Q1) What is Dark Matter?

Dark matter is an invisible type of matter theorised to make up the majority of all matter in the Universe. It has mass, but it can't be seen and doesn't interact with ordinary matter. According to our standard model of cosmology, dark matter makes up 85 percent of all the matter in the Universe, and 27 per cent of the Universe's total mass-energy.

Source: [NASA's James Webb Space Telescope Uncovers New Details In Pandora's Cluster](#)

Source: <https://vajiramandravi.com/current-affairs/what-is-pandoras-cluster-abell-2744/>

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