

Alaknanda Galaxy

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Alaknanda Galaxy Latest News

Recently, researchers at National Centre for Radio Astrophysics – Tata Institute of Fundamental Research (NCRA-TIFR), Pune, have discovered a spiral galaxy and named it as Alaknanda.

About Alaknanda Galaxy

- It is located about **12 billion light years** away and has **textbook spiral structure**.
- It is named after a **Himalayan river Alaknanda** and the Hindi word for the Milky Way.
- The galaxy has two **well-defined spiral arms** wrapping around a bright central bulge, spanning approximately 30,000 light-years in diameter.
- It is a powerhouse of stellar birth, creating stars at a rate equivalent to about 60 solar masses annually.
- It looks remarkably **similar to our own Milky Way** and formed when the Milky way was only 10 per cent of its current age.
- It was discovered by using NASA's **James Webb Space Telescope**.

What is a Spiral Galaxy?

- Spiral galaxies are **twisted collections of stars and gas** that often have beautiful shapes and are made up of hot, young stars.
- In a spiral galaxy, the stars, gas, and dust are gathered in spiral arms that spread outward from the galaxy's center.
- **Structure**
 - Most spiral galaxies **contain a central bulge** surrounded by a flat, rotating disk of stars.
 - The bulge in the **center is made up of older, dimmer stars** and is thought to contain a supermassive black hole.
 - Approximately two-thirds of spiral galaxies also **contain a bar structure** through their center, as does the Milky Way.
 - The disk of stars orbiting the bulge separates into arms that circle the galaxy.
 - These spiral arms contain a wealth of gas and dust and younger stars that shine brightly before their quick demise.

Source: IE

Source: <https://vajiramandravi.com/current-affairs/alaknanda-galaxy/>

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