

Milky Way's Violent Birth Decoded

Based on the Gaia space observatory data, Scientist has observed that the <u>Milky Way</u>, home to our sun and billions of other stars, merged with another smaller galaxy in a cosmic collision roughly 10 billion years ago.

Gaia Space Observatory

- Gaia is a mission to chart a three-dimensional map of our Galaxy, the Milky Way, in the process revealing the composition, formation and evolution of the Galaxy.
- Gaia will provide unprecedented positional and radial velocity measurements with the accuracy needed to produce a census of about one billion stars in our Galaxy.
- According to scientists, the union of the Milky Way and the so-called dwarf galaxy Gaia-Enceladus increased our galaxy's mass by about a quarter and triggered a period of accelerated star formation lasting about 2 to 4 billion years.
- Galaxies of all types, including the Milky Way, began to form relatively soon after the <u>Big Bang</u> explosion that marked the beginning of the universe some 13.8 billion years ago, but were generally smaller than those seen today and were forming stars at a rapid rate. Subsequent galactic mergers were instrumental in configuring galaxies existing now.
- Certain stars with higher content of elements other than hydrogen or helium arose in the Milky Way and others with lower such content originated in Gaia-Enceladus, owing to its smaller mass.

Source: The Hindu

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