

# Stephan's Quintet

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## 1 About Stephan's Quintet

Stephan's Quintet was one of the first images taken by James Web Space telescope. The photo was released by NASA on 12 July 2022.

Stephan's Quintet is a visual grouping of five galaxies of which four form the first compact galaxy group ever discovered. Together, the five galaxies of Stephan's Quintet are also known as the Hickson Compact Group 92 (HCG 92). The five galaxies are NGC 7317, NGC 7318A, NGC 7318B, NGC 7319 and NGC 7320. It is about 290 million light years away from Earth situated in Pegasus constellation.



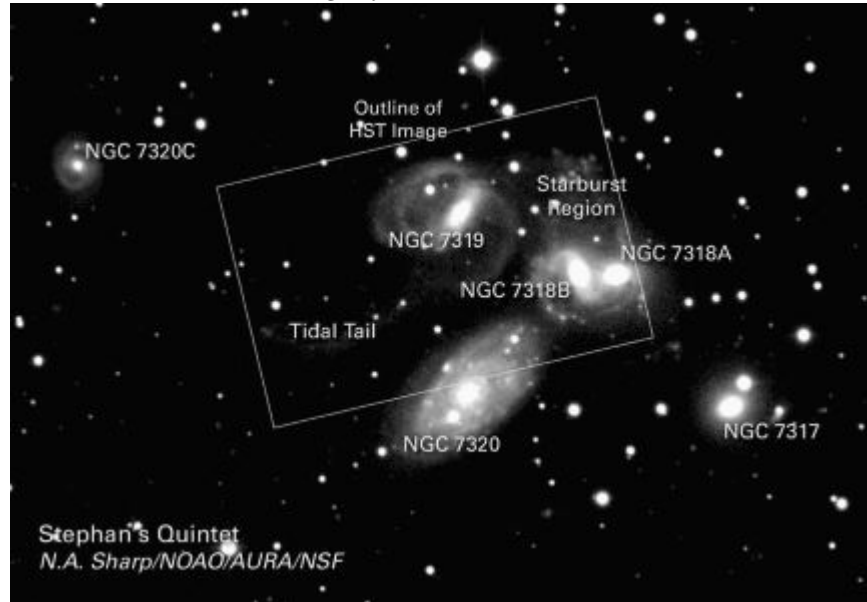
Stephan's Quintet(taken by JWST )

Today, NASA's James Webb Space Telescope reveals Stephan's Quintet in a new light. This enormous mosaic is Webb's largest image to date, covering about one-fifth of the Moon's diameter. It contains over 150 million pixels and is constructed from almost 1,000 separate image files. The information from Webb provides new insights into how galactic interactions may have driven galaxy evolution in the early universe.

With its powerful, infrared vision and extremely high spatial resolution, Webb shows never-before-seen details in this galaxy group. Sparkling clusters of millions of young stars and starburst regions of fresh star birth grace the image. Sweeping tails of gas, dust and stars are being pulled from several of the galaxies due to gravitational interactions. Most dramatically, Webb captures huge shock waves as one of the galaxies, NGC 7318B, smashes through the cluster.

## 2 Galaxies of Stephan's Quintet

The galaxies of Stephan's Quintet are situated in pegasus constellation. Four of the galaxies namely, NGC 7317, NGC 7318A, NGC 7318B, and NGC 7319 are 290 million light-years away from Earth while NGC 7320 resides 40 million light-years from Earth.



### 2.1 NGC 7317

NGC 7317 is an elliptical galaxy that is a member of Stephan's Quintet in the constellation Pegasus.

### 2.2 NGC 7318

NGC 7318 (also known as UGC 12099/UGC 12100 or HCG 92d/b) is a pair of colliding galaxies about 280 million light-years from Earth. They appear in the Constellation Pegasus and are members of Stephan's Quintet.

### 2.3 NGC 7319

NGC 7319 is a highly distorted barred spiral galaxy that is a member of the compact Stephan's Quintet group located in the constellation Pegasus, some 311 megalight-years distant from the Milky Way. The galaxy's arms, dust and gas have been highly disturbed as a result of the interaction with the other members of the Quintet.

## 2.4 NGC 7320

NGC 7320 is a spiral galaxy in Stephan's Quintet. However, it is not an actual member of the galaxy group, but a much closer line-of-sight galaxy at a distance of about 40 million light years, the same as the nearby NGC 7331.

## References

- [1] <https://en.wikipedia.org/>
- [2] <https://www.nasa.gov/>
- [3] <https://www.constellation-guide.com>