https://www.bgdailynews.com/face-of-a-galaxy/article_50e5d006-c669-5eda-9512-e8f186ec9f6b.html

Face of a galaxy

May 18, 2023



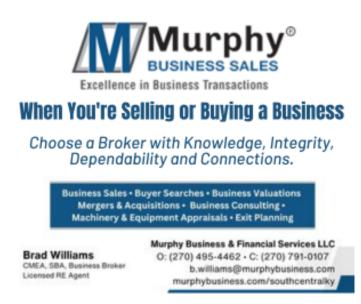
The Whirlpool Galaxy is located 26 million light years away from Earth and is located in the constellation Canes Venaciti.

Dr. Carlos Rotellar

The Whirlpool Galaxy, also known as M51 and NGC 5194, is a face on grand design spiral galaxy. It is located approximately 26 million light years away from Earth in the constellation Canes Venaciti (Hunting Dogs), and sits close to the last star of the Big Dipper handle. It has a diameter of 100,000 light years and it was discovered by Charles Messier on October 13, 1773.

A grand design spiral galaxy is a type of spiral galaxy with prominent and well-defined spiral arms, as we can see in the image.

The Whirlpool Galaxy has an interacting small companion galaxy called NGC 5195 discovered by Pierre Mechain on March 20, 1781.



The interaction with this small galaxy that causes the prominent arms of M51. The interaction between these two galaxies started some 500 to 600 million years ago when they were only about 80,000 light years apart, they will finally merge in another 70 million years.

The small galaxy, with a diameter of 50,000 light years, lies behind the plane of the larger galaxy and illuminates the ends of the long spiral arm of M51.



During this galactic dance the small galaxy has passed through M 51several times and the gravitational forces caused by these passages is generating a massive star formation. A bridge of gas and dust ties the two galaxies together as they merge.

The blue color is due to hot young stars, while the yellowish color comes from older stars.

In the center of M51 there is a massive black hole. M51 galactic bulge is 80 light years across and is brighter than 100 million suns.

– Dr. Carlos Rotellar is a Bowling Green nephrologist who has had an interest in astrophotography and has been taking images of the universe from his driveway for several years. Website: www.Skyastrophotos.com