Cosmic Crashes Get Galaxies in a Spin
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If you go outside on a clear night, far away from city lights, you will see thousands of twinkling stars. Each one is part of the galaxy we live in called the Milky Way.

Beyond the Milky Way, there are billions of other galaxies stretching to the edge of the Universe. Each one is a collection of millions of stars, cosmic dust and gas, all held together by gravity.

Galaxies come in a variety of shapes and sizes; many are spiral disc galaxies, like the Milky Way. These are extremely thin and often display curving spiral arms wrapped around a bulging centre. Spiral galaxies also rotate through space very quickly, like giant spinning tops.

The large number of spiral galaxies is a big mystery to astronomers. These thin discs are fragile and easily destroyed by violent events such as collisions with other galaxies.

Throughout their lifetime almost every galaxy will be the victim of a cosmic collision. This can mean that two galaxies actually crash into one another, becoming disfigured and sparking a frenzy of new star birth. Or it can mean they pass close to each other and affect each other simply through the pull of their gravity.

For many years astronomers have believed that when two similar-sized spiral galaxies collide, they will mash together a type of galaxy called an elliptical galaxy, the shape of a giant squashed football.

But, if two spiral galaxies make one elliptical galaxy, how are there still so many spiral galaxies in the Universe? This question has been keeping astronomers awake at night for decades!

Well, just last week they finally found the answer — new evidence has shown that sometimes this kind of collision actually forms a giant spiral galaxy, not an elliptical galaxy. This could be why there are still so many spiral galaxies in the Universe!

COOL FACT!

In four billion years the Milky Way galaxy will collide and merge with our nearest spiral-shaped neighbour, the Andromeda Galaxy.