

The figure shows five examples of galaxies representing different stages of themerger sequence, from NGC 5426/5427, where two spiral galaxies are just approaching each other, to NGC 4038/4039, where the long tidal tails show that it is a very recent collision between two spirals, to NGC 7252, where the cores of the two galaxies have had time to merge into a single nucleus, to NGC 3610, where only a few faint loops and shells give away the merger history, toM87, a normal elliptical galaxy.

The histogram on the left shows a simulation of the colors of globular star clusters in these galaxies. In all cases there is an old, original population of globular clusters with an age of roughly 15 billion years (the dashed line). In addition, the merger remnants also have a large population of young clusters formed during the merger (with ages and colors indicated in the histogram). The galaxies can be put into the correct evolutionary sequence by measuring the colors of the young star clusters.