Galaxies are huge concentrations of stars, gas and dust. Galaxies contain between 10^6 and $10^1$1 solar masses of stars, gas and dust. The smallest galaxies have diameters of a few thousand lightyears, and the largest galaxies of hundred thousand lightyears. Galaxies often occur in clusters containing tens to thousands of members. Our own galaxy is part of the "local group" which contains a few dozen members.

Due to the large sizes of the galaxies and their clustering properties collisions and close-encounters occur frequently. In fact galaxy-galaxy interactions seem to be more rule than exception. Our own galaxy experienced several close encounters and has "cannibalized" several smaller galaxies. We can detect the remnants of these encounters.

The Hubble Space Telescope has observed many colliding or interacting galaxies. The strong gravitational interaction results in a scala of fascinating features: bridges, tails, spiral arms, usually accompanied by bursts of star formation.

I will show images of (nearly)-colliding and merging galaxies and explain their main features and properties. Movies with numerical simulations help us to understand the physical processes and the history of collisions. I will then zoom into one particular interacting galaxy system: "the Whirlpool system" as an example of our study to understand the effects of a close encounter on the structure of a galaxy.