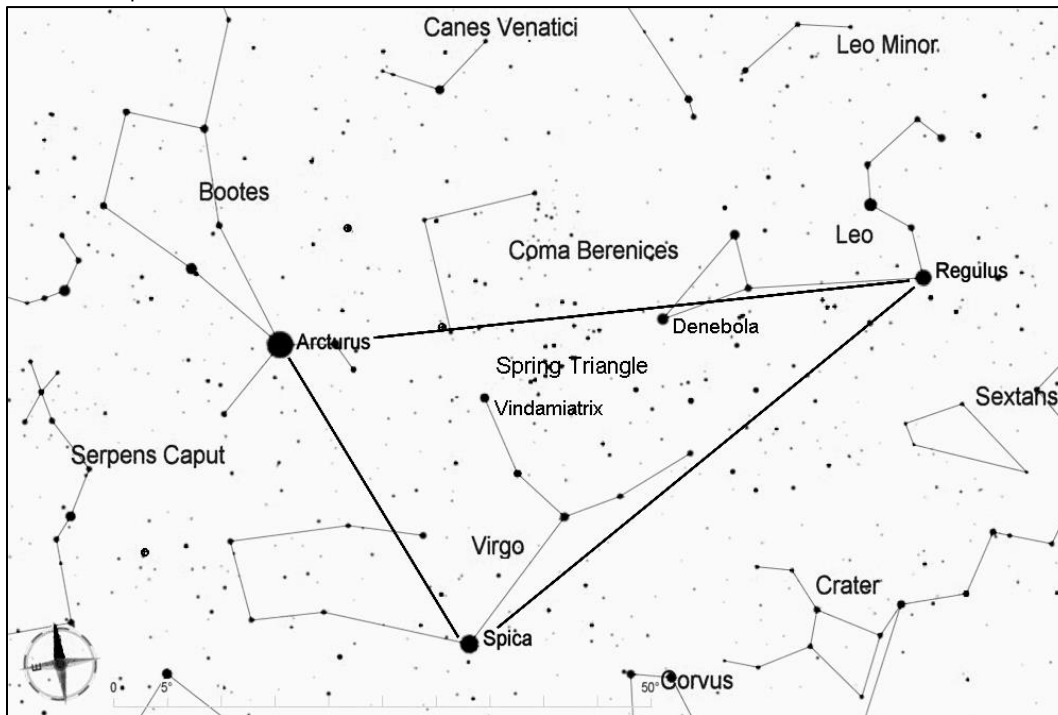


Messier 58, 59, 60, 89, and 90, Galaxies in Virgo

These are five of the many galaxies of the Coma-Virgo galaxy cluster, a prime hunting ground for galaxy observers every spring. Dozens of galaxies in this cluster are visible in medium to large amateur telescopes. This star hop includes elliptical galaxies M59, M60, and M89, and spiral galaxies M58 and M90. These galaxies are roughly 50 to 60 million light years away. All of them are around magnitude 10, and should be visible in even a small telescope.



Start by finding the Spring Triangle, which consists of three widely-separated first magnitude stars--Arcturus, Spica, and Regulus. The Spring Triangle is high in the southeast sky in early spring, and in the southwest sky by mid-Summer. (To get oriented, you can use the handle of the Big Dipper and "follow the arc to Arcturus").

For this star hop, look in the middle of the Spring Triangle for Denebola, the star representing the back end of Leo, the lion, and Vindemiatrix, a magnitude 2.8 star in Virgo. The galaxies of the Virgo cluster are found in the area between these two stars.

From Vindemiatrix, look 5 degrees west and slightly south to find ρ (rho) Virginis, a magnitude 4.8 star that is easy to identify because it is paired with a slightly dimmer star just to its north. Center ρ in the telescope with a low-power eyepiece, and then just move 1.4 degrees north to arrive at the oval shape of M59. Continuing with a low-power eyepiece and using the chart below, you can take hops of less than 1 degree to find M60 to the east of M59, and M58, M89, and M90 to the west and north.

