



M101 Galaxy. This is the nearby Sc spiral (in fact, perhaps the textbook example of a luminous so-called luminosity class I spiral) NGC 5457, Messier 101 (M101) or the Pinwheel Galaxy, in Ursa Major. It has several extremely luminous star-forming (HII) regions in the outer spiral arms, some sporting their own NGC numbers. It dominates a small group of galaxies, with some of its neighbors such as NGC 5474 showing wear and tear attributed to the tidal effects of M101. M101 itself is further noteworthy for its extensive and lopsided distribution of neutral hydrogen gas, and for showing evidence of gas falling into its disk at high speeds. M101 is located at a distance of about 27 million light-years from Earth and it is nearly twice the size of our Milky Way. Left: image obtained using the Wide Field Camera on the Isaac Newton Telescope in 1998, combining the filters Harris R, V and B, credit: Peter Bunclark (IoA) and Nik Szymanek. Right: same as before but this time it was obtained in 2009, and combining the filters Sloan g', r'+H-alpha and i', credit: R. Barrena (IAC) and D. López (IAC).

