

Apr 11 Sky notes

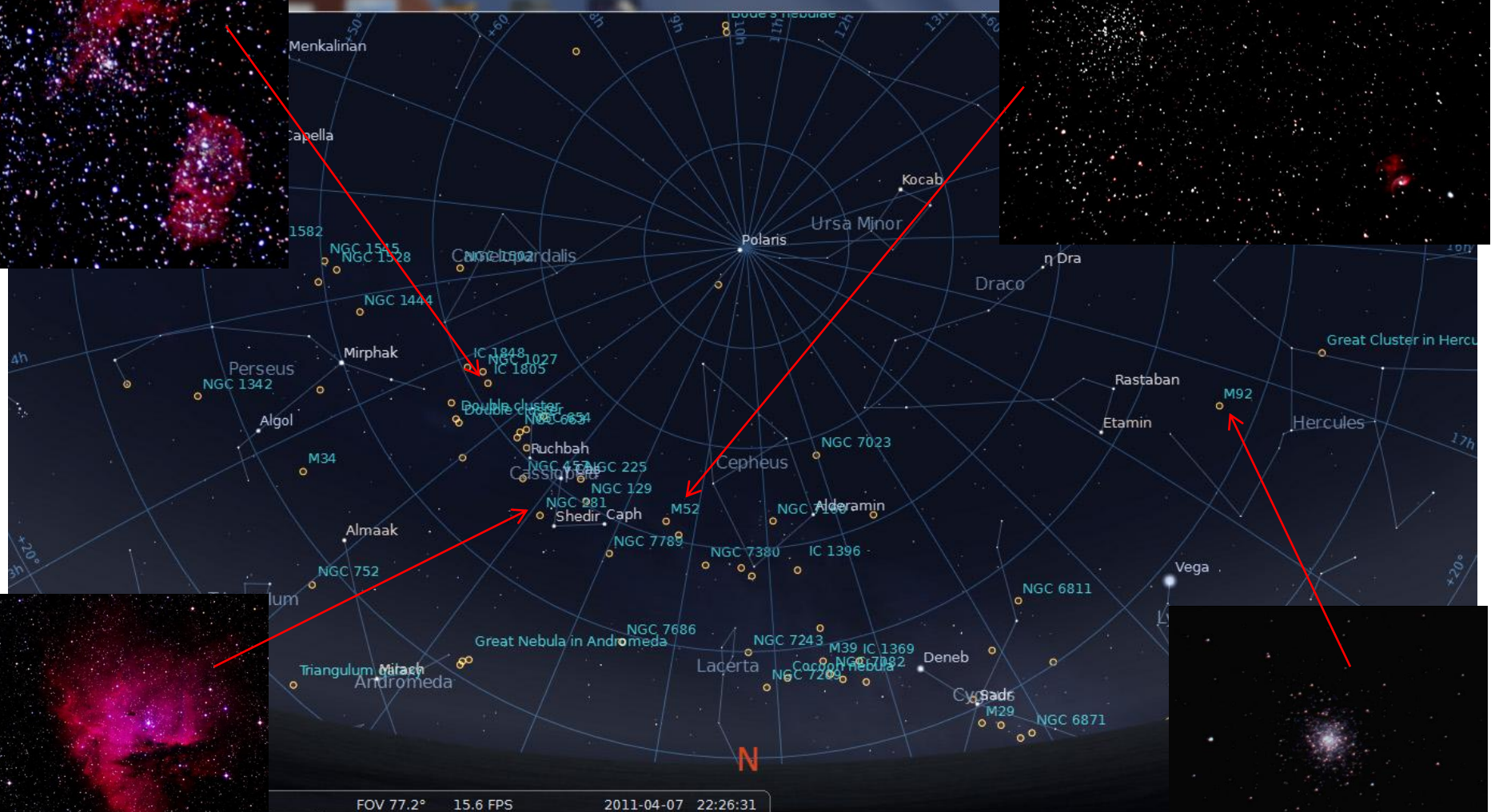
View facing North 10:30pm on Apr 7th 2011

(77deg Field of View)

(S.Harding)

Heart (IC1848) & Soul (IC1805) Nebulae
7500 light yrs distance
-Chain of HII regions in Perseus arm
-O/B stars illuminate these emission nebulae

Open Cluster M52 & Bubble Nebula NGC7635
M52 -5000 years distance
Bubble Nebula – illuminated by Wolf-Rayet star(100,000 x Lsun)



Pacman Nebula NGC281 (9600 lt yrs away)
Classic HII region illuminated by young stars(Perseus arm)
Size of 60 light years

Globular Cluster M92
26,700 lt yrs away
Magnitude +6.3

(DSS2 image)

(S.Harding)



Heart (IC1848) & Soul (IC1805) Nebulae / Double Cluster and Comet Hartley 2 (10-10-10)
Wide Field image – 80mm lens / modified canon 350D

View facing East 10:30pm on Apr7th 2011 (68deg Field of View)

Seyfert Galaxy M106
24 million lt yrs away
Active galaxy
Inclined at 72 deg

Whale Galaxy(NGC4635)-25 million lt yrs
Disturbed edge-on galaxy

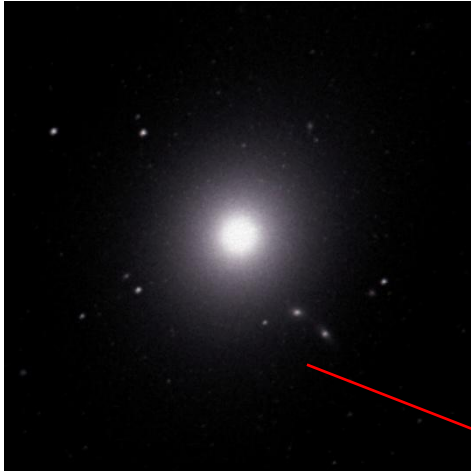
Blackeye Galaxy M64 -25 million lt yrs
Prominent dark dust lane



(S.Harding)

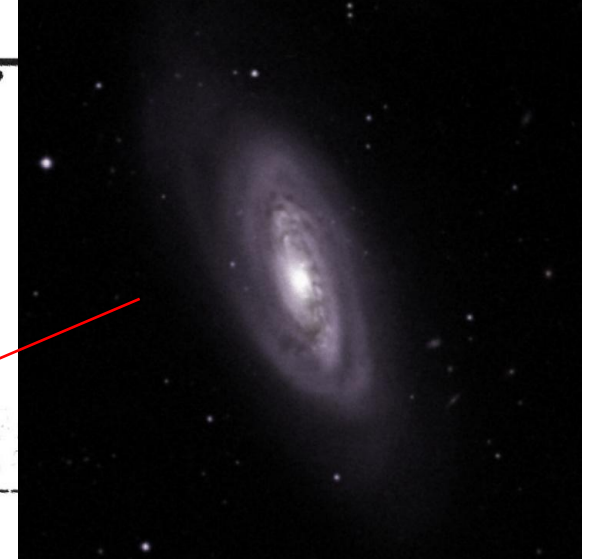
March 2011 Feature of month(1) : Virgo Galaxy Cluster DSS2 images

M87(Elliptical galaxy) -52 million lt yrs



Over 2500 galaxies in Virgo cluster
M87 is at centre of cluster
Many giant elliptical galaxies

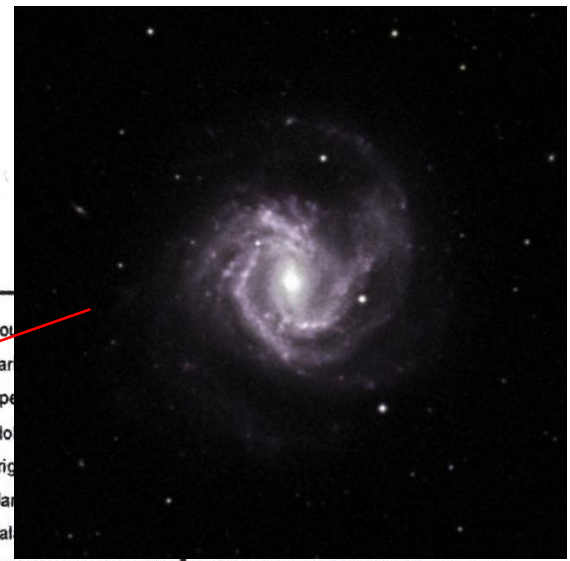
M90(spiral galaxy) – 60 million lt yrs away



Smooth / featureless – moving towards Earth

Dominant galaxy in Virgo cluster
1 trillion stars – 500,000 lt yrs size
Massive black hole at centre

M61(Barred spiral galaxy) – 51 million lt yrs away



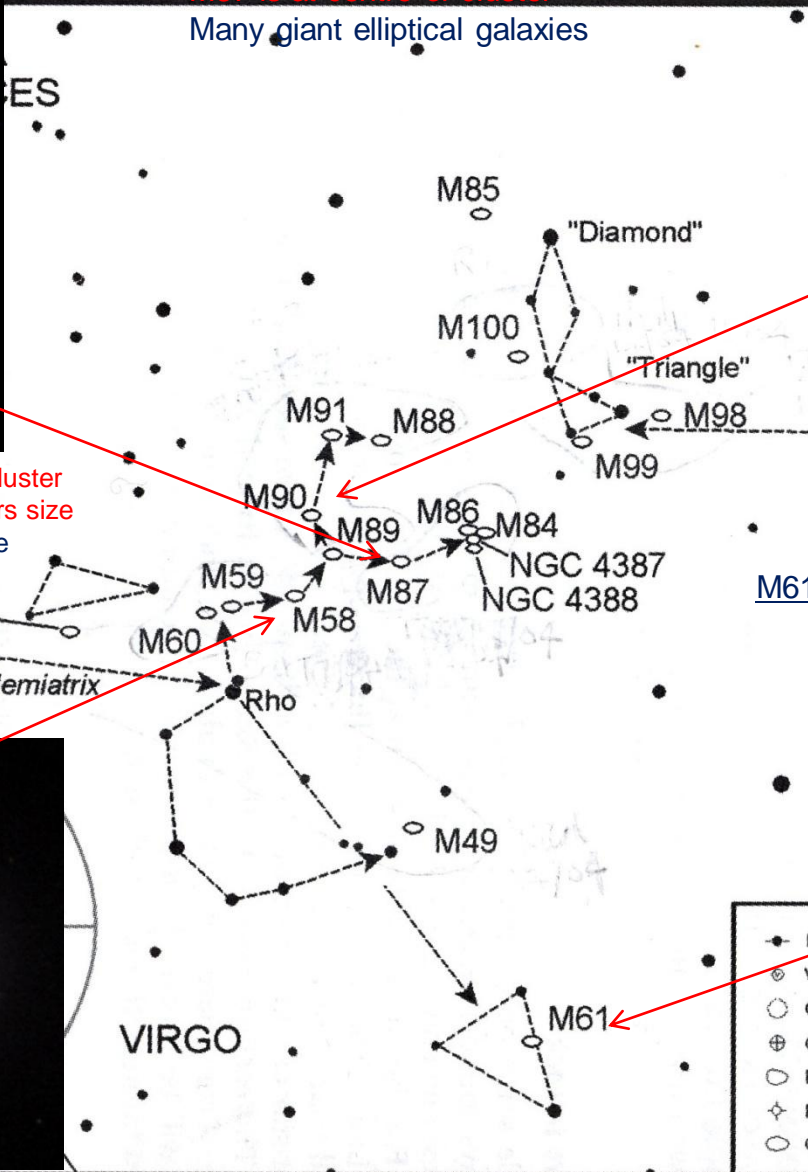
Grand design spiral – high star formation /numerous HII regions

M58(Barred spiral galaxy)

65 million lt yrs away



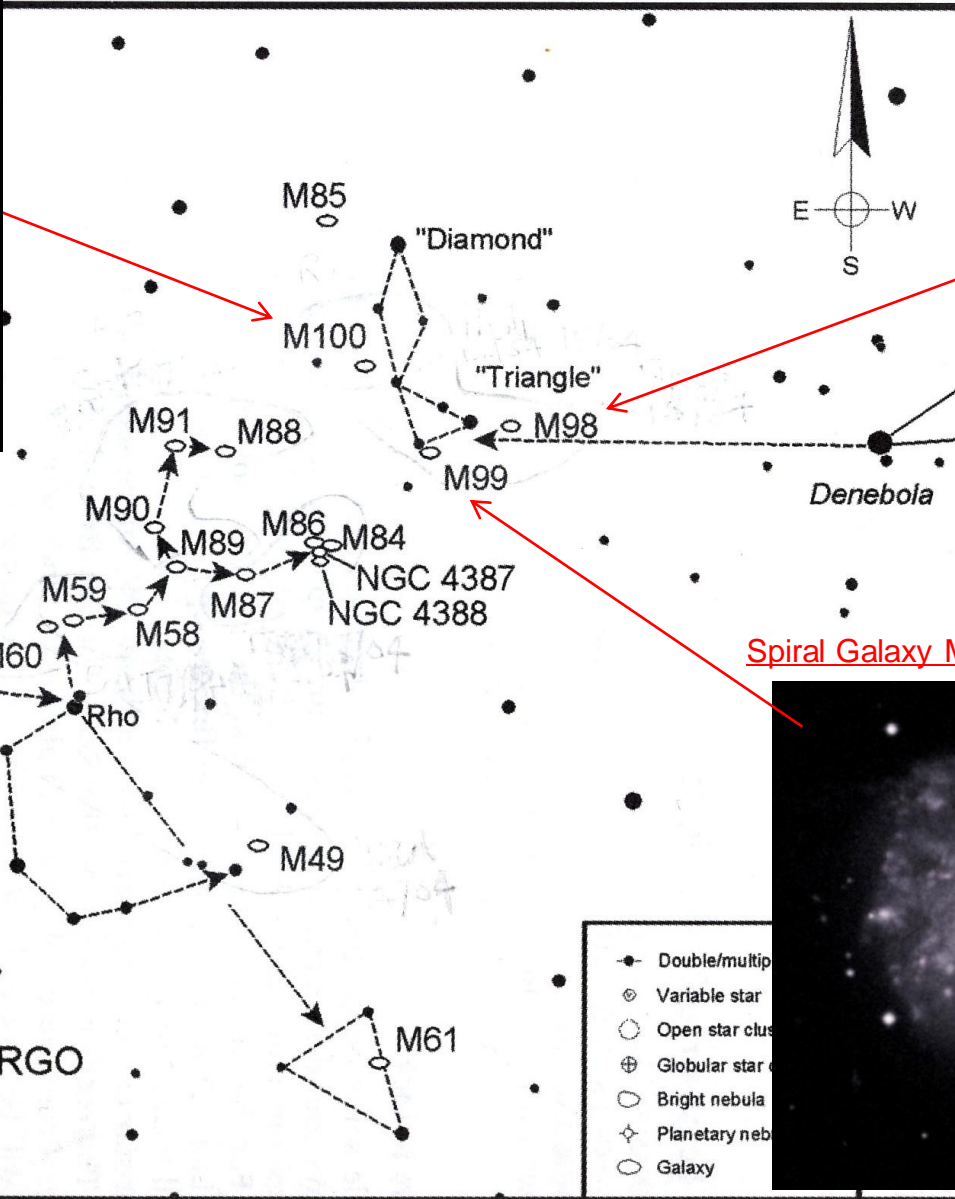
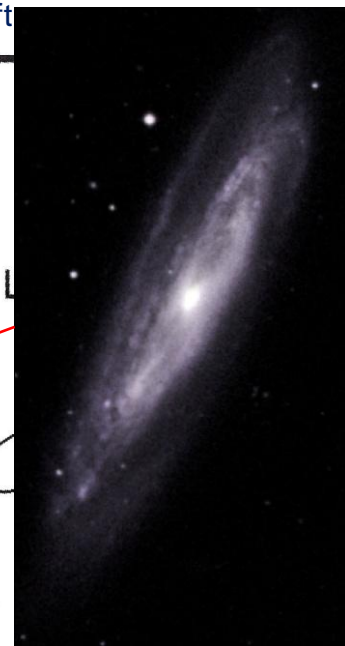
One of the most gas poor galaxies



Spiral Galaxy M100 – 56 million lt yrs Virgo Galaxy Cluster(cont)

DSS2 images

Spiral Galaxy M98 – 60 million lt yrs away
Galaxy has blue shift



Brightest / closest Virgo cluster member
Spiral arms with dust lanes
HII regions in spiral arms

Spiral Galaxy M99 – 50 million lt yrs away



7° finderscope field of view

View facing South 10:30pm on Apr7th 2011 (68deg Field of View)



8° 26.8 FPS 2011-04-07 22:26:31

Sombrero Galaxy M104

31 million lt yrs away
 Prominent central bulge
 Near edge on spiral galaxy
 Thick dark dust lane

Open Cluster M50

DSS2 image
 3000 lt yrs away
 Mainly luminous O/B stars



(S.Harding)



View facing West 10:30pm on Apr7th 2011 (68deg Field of View)



Open Cluster M34
1400 lt yrs away – 10 lt yrs size
Great object in small telescope
250 million yrs old – mainly O/B stars
few red giant stars

Moon

New moon (Apr 3rd) , First quarter(Apr 11th) , Full moon (Apr 17th) , Last Quarter (Apr 24th)

Lunar crater comparison



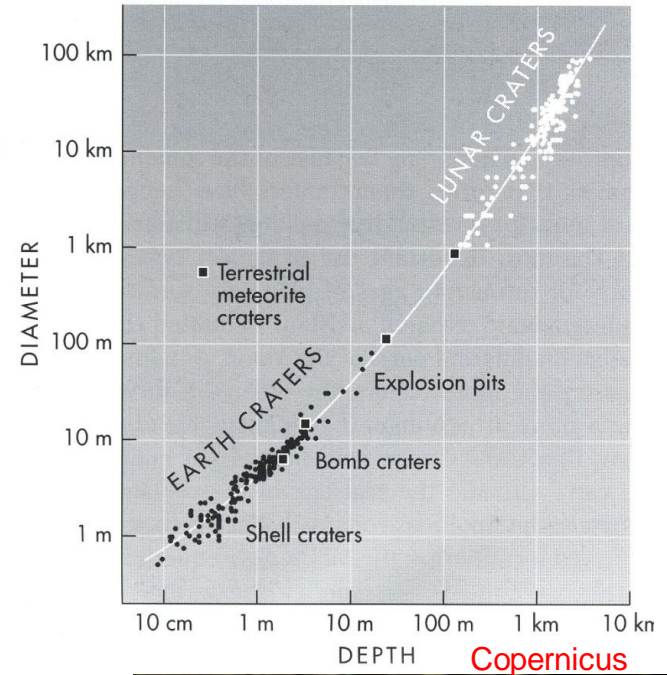
Archimedes Crater (Mare Imbrium)
 83km wide 1.6km deep
 Partially flooded with Mare lava
 (floor is at same level as
 Mare Imbrium)
 No breach in crater walls



Ptolemaeus
 (153km wide
 2.4km deep)

Alphonsus
 (118km wide)

Arzachel

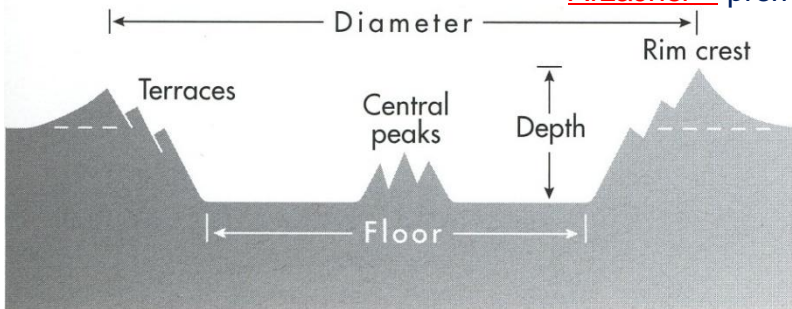


Ptolemaeus –smooth floor & filled with lava

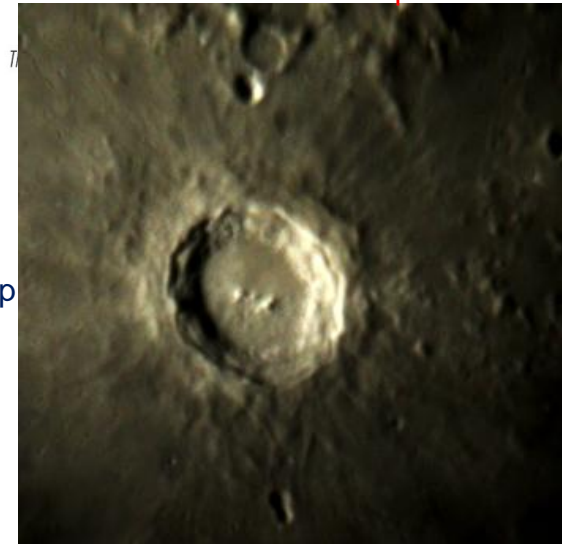
THE PARTS OF AN IMPACT CRATER

Alphonsus –dark patches on floor of crater
 (volcanic deposits)

Arzachel – prominent central peak



Copernicus- 93km wide/4km deep
 Floor is 55km wide
 Prominent terraced inner walls
 Radial ejecta
 Secondary impact craters
 700km rays from Copernicus



Solar System Sky notes (Apr 2011)

Mercury

Very difficult to observe this month - low in east before sunrise (magn +2.2, 11" diam)

Venus

Rises 80min before sunrise (Apr 1st) & 60min on Apr 30th . (Magn -3.9, 12" diam , 80 – 90% phase)

Mars

Very difficult to observe this month – low in east before sunrise

Jupiter

Not really visible easily this month

Saturn

Rises by 8:00pm (Apr 7th) and is visible all night – at opposition on Apr 3rd – 4th .

Ring tilt is about 8deg this month – Ring span 44"(Saturn equatorial width of 19*) – magn +0.5

