1 how to operate the dome

- make sure that is not raining
- unscrew the dome doors
- undo the ropes and pull the strings
- use the stick to help open the doors
- remove the telescope cover
- turn on computer and start software by typing sudo kstars in terminal. open all relative windows
- connect the right camera to the telescope and the relevant cables to the camera and turn it on. it is on if the red light on it is on.
- power the telescope. it will start moving
- move the telescope so that it is easier to take off the caps from it. not from the finder scope because it does not work. put all the caps together in the same place.
- cool down the ccd to -20 degrees.

2 calibrate the telescope

- go out in the roof and look for a bright star to use for calibration
- once found, open the star finder page on kstars and try to locate the star on it, i.e. name the star.
- make sure that the software and the telescope read the same RA and Dec.
- move the telescope and the dome towards the star. try to align the telescope with the star using also the small scope (name).
- open the focus page on the software and focus on the star with the telescope using the dial on it. make long turns to appreciate in which direction to move the dial in order to focus in the right way.

3 possible open clusters to study

- The Double Cluster is circumpolar (continuously above the horizon) from most northern temperate latitudes. It is constituted of two clusters. NGC 869 westernmost of the double cluster: Right ascension: 02h 19.1m, Declination: +57°09'. NCG 884 easternmost part of the double cluster. Right ascension 02h 22.0m, Declination +57°08'.

- NGC 7789 is circumpolar so visible all night. It will be highest in the sky at dusk, becoming accessible at around 17:47 (GMT), 72°above your north-western horizon. It will be lost to dawn twilight at around 06:22, 23°above your northern horizon. Right ascension 23h 57m 24s, Declination +56°42' 30".
- M52 or NGC 7654 visible all night. At 17:53 the object will be placed at northwest, 67°above your horizon, and will be observable until around 06:37 when fade from view as dawn breaks northeast. Right ascension 23h 24m 48.0s, Declination +61°35' 36".
- M45 the Pleiades. It will reach its highest point in the sky at around midnight local time. By about February, the Pleiades are already high in the sky at sunset. Right ascension 03h 47m 24s, Declination +24°07' 00".
- Hyades is spread over a large area; has no nebula. It is best seen at about 9 PM Local Time during the month of January, when it is highest in the sky. Right ascension 4h 27m, Declination +15°52'.
- M37 or NGC 2099. south of Capella. Right ascension 5h 52m 18s Declination +32°33' 02"
- Nearby is M36, a rich cluster of fainter stars, somewhat smaller than M37, but also impressive. The cluster measures 12' in diameter and contains 60 stars. It's sparse compared to M37, and visually the stars tend to form a blunt cross. Right ascension 05h 36m 18.0s Declination +34°08' 24"
- M38 angular diameter is 21 arc-minutes. RA= 5h 28.7m, Dec= +35°50' which makes M38 best seen during the winter.
- M35 angular diameter is 28 arc-minutes. Right ascension 06h 08m 54.0s Declination +24°20' 00". south of capella.