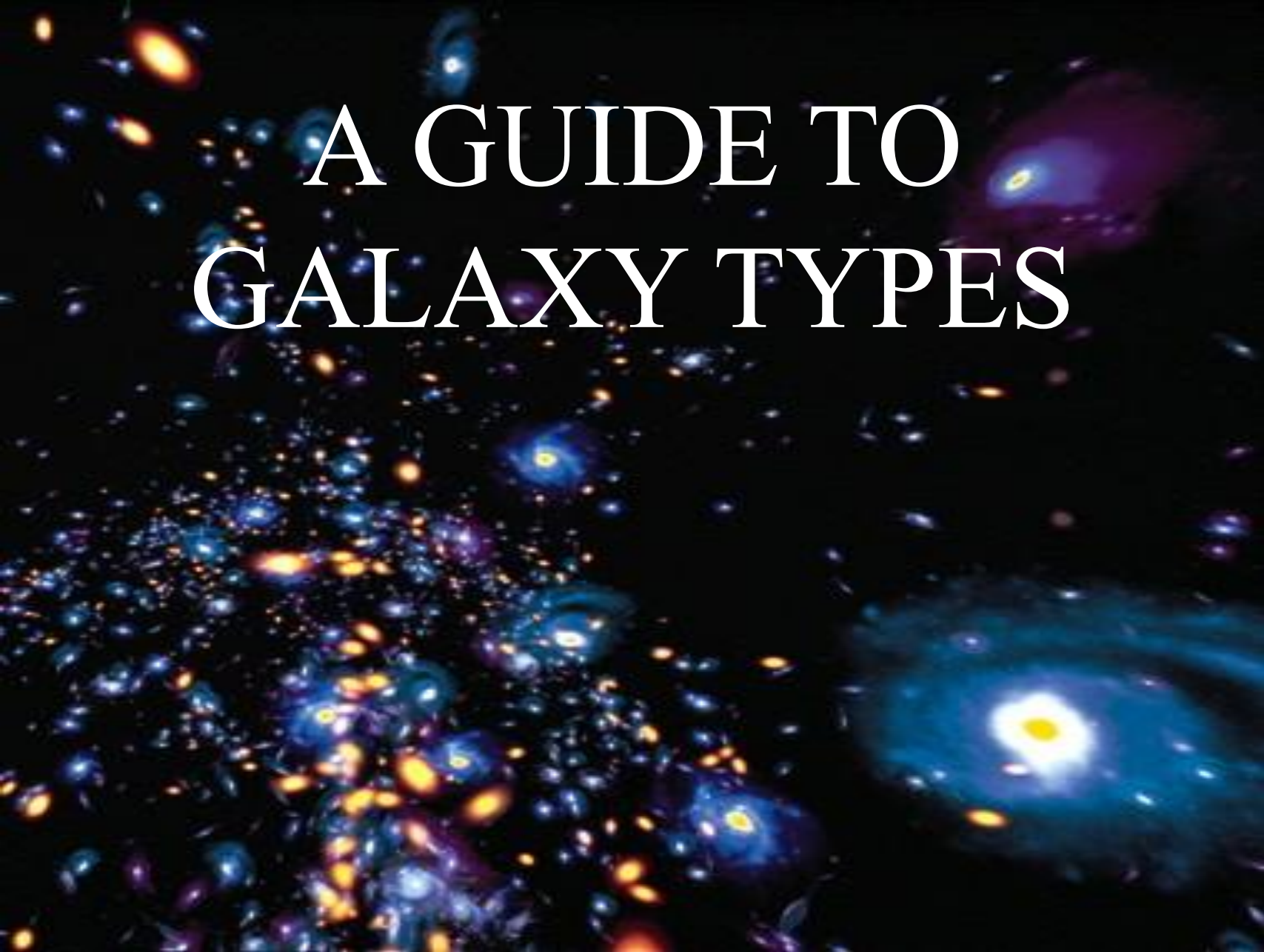


A GUIDE TO GALAXY TYPES



Spiral Galaxies



Spiral Galaxies

- Spiral shape with long arching arms which are rich star formation regions.
- Spiral arms are therefore home to young stars (blue & metal rich).
- The halo and nucleus are home to older stars (red & metal poor).
- Large amounts of gas and dust.
- Classified as follows...
 - Sa – tightly wound arms; fat nuclear bulge
 - Sb – moderately wound arms; moderate nuclear bulge
 - Sc – loosely wound arms; tiny nuclear bulge



Sa



Sb



Sc



Barred Spiral Galaxies



Barred Spiral Galaxies

- Same properties as normal spiral galaxies with a bar of stars running through the nuclear bulge.
- Classified as follows...
 - SBa – large central bulge; tightly wound arms
 - SBb – moderate bulge; moderately wound arms
 - SBc – tiny bulge; loosely wound arms

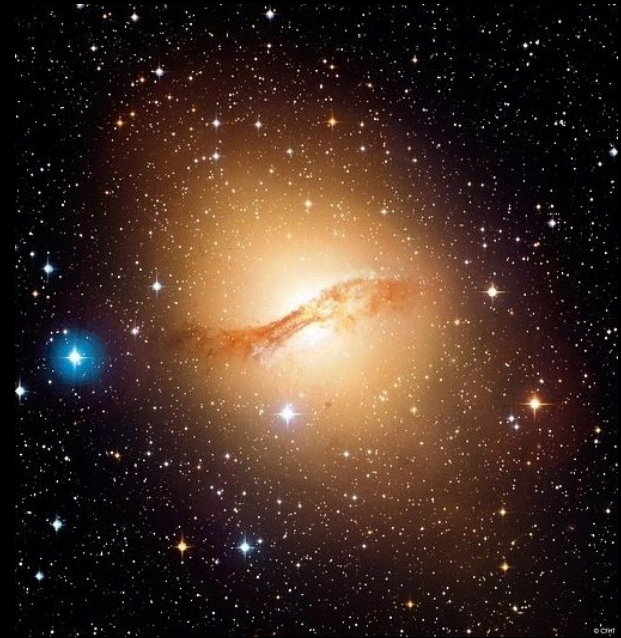


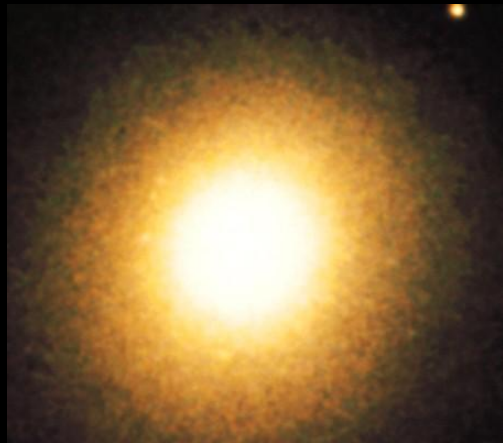
Elliptical Galaxies



Elliptical Galaxies

- These galaxies have an elliptical shape.
- Absolutely no spiral arms.
- Very little interstellar matter (gas and dust).
- Mostly old (metal poor) stars.
- Classified on a scale from 0-7.
 - E0 – roundest elliptical galaxies
 - E7 – the most elongated elliptical galaxies
- FOR THE PURPOSE OF THIS LAB, WHEN YOU SEE AN ELLIPTICAL GALAXY, JUST SELECT ELLIPTICAL.
 - *It is practically pointless to try to identify them by numerical types from 0 - 7.*





E0



E1



E2



E3



E6

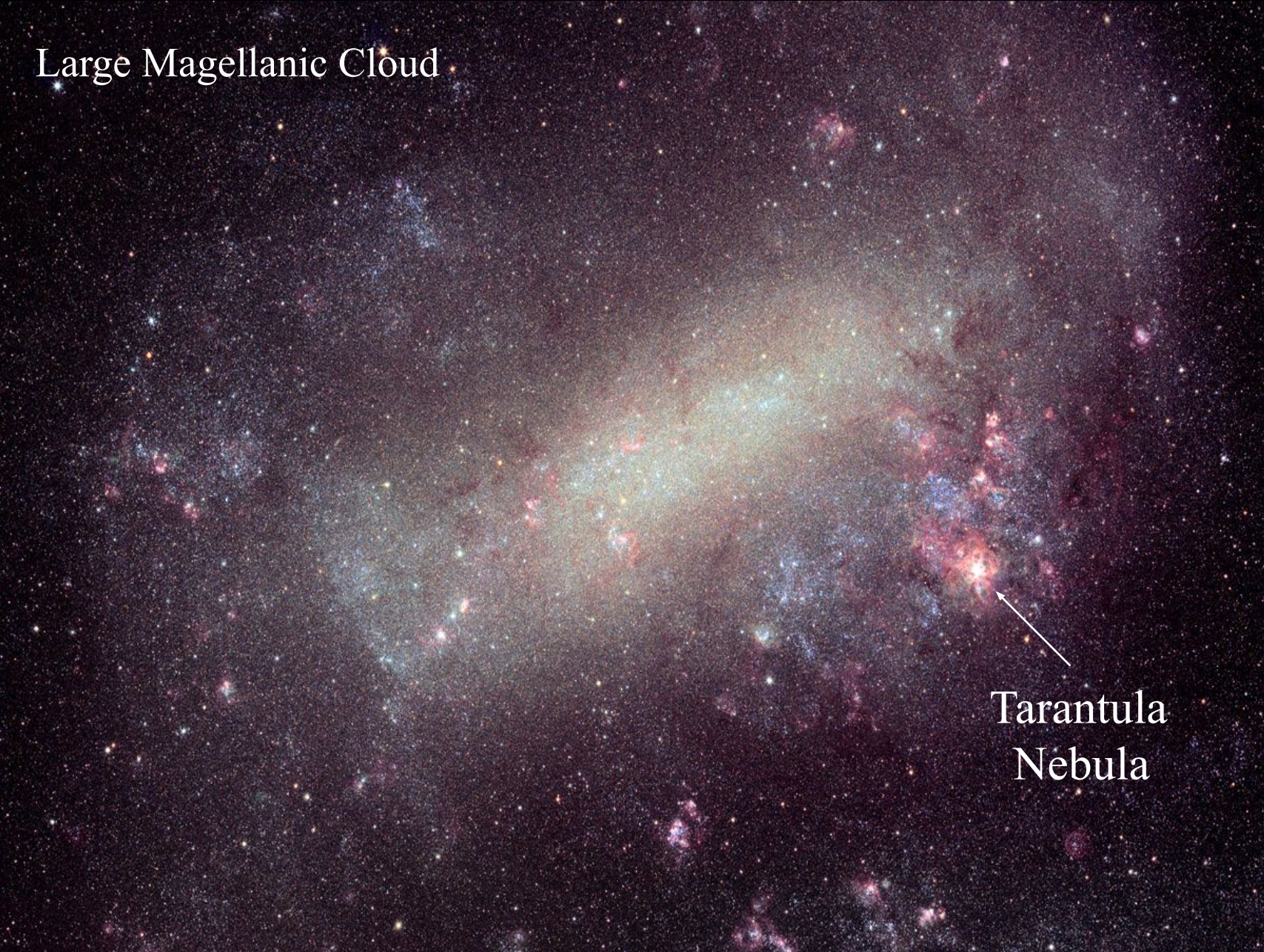
Irregular Galaxies

- No obvious structure.
- Smaller than most galaxies.
- Lots of gas and dust.
- Mixture of old and young stars.



Large Magellanic Cloud

Tarantula
Nebula



Small Magellanic Cloud

