Galaxies

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March 21 2013

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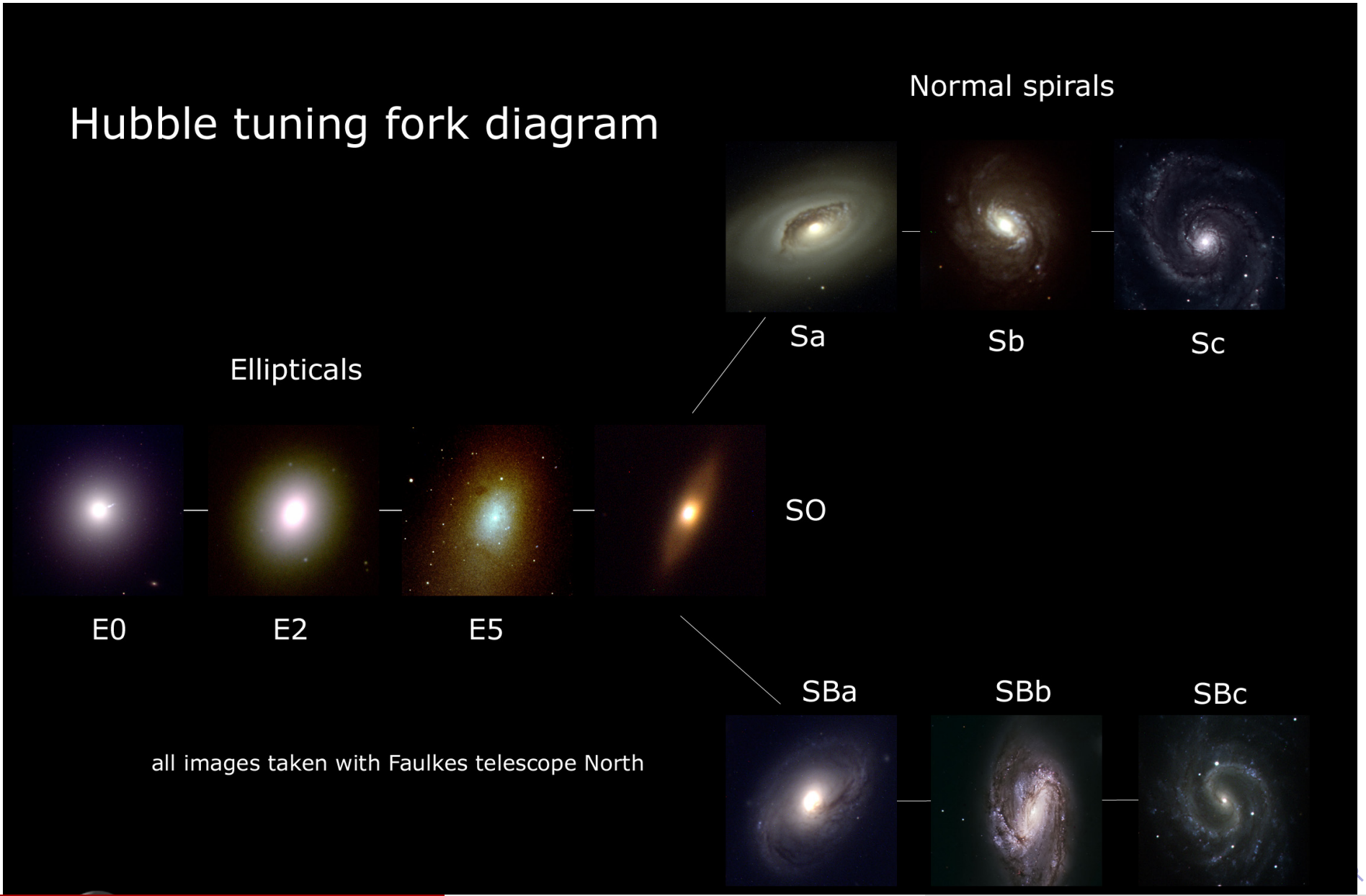
Hubble's Tuning Fork



Elliptical galaxies

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- Elliptical galaxies are just as they sound, elliptical, they are primarily made of older red stars and have different ellipticities

Spiral Galaxies

- Spiral galaxies are typical representations of galaxies.
- Spiral galaxies typically have star formation regions in the spiral arms.
- Spiral galaxies have different kinds of star formation regions, you will typically see this in UV, and B filter images.

Irregular galaxies

- Irregular galaxies are galaxies which have been bullied into having no shape
- Irregular galaxies are typically companions to larger galaxies which are slowly stripping material from them gravitationally.
- the strippinmg can either be Ram pressure stripping or tidal stripping.
- the stripping could also be periodic known as galactic harassment(yes thats a word!)

So what are we doing today

- You will first estimate the ellipticity of the galaxy by eye and then assign them numbers E0,E1 etc.
- You will then measure the ellipticity of an elliptical galaxy using the formula $10 \times \frac{a-b}{a}$ where a and b are the major and minor axes respectively.
- You will measure the ellipticity and assign values such E0,E1 etc to the elliptical galaxies.
- You will look at images of spiral galaxies and classify them as S0,S_a,S_b etc.
- you will write brief explanations of why you classified each galaxy as that.
- This will allow me to determine if you have understood the Hubble's tuning fork

Finally you will also look at different bands of galaxy images and classify them according to what you observe and what you can infer from them. This will be a qualitative classification instead of a quantitative one