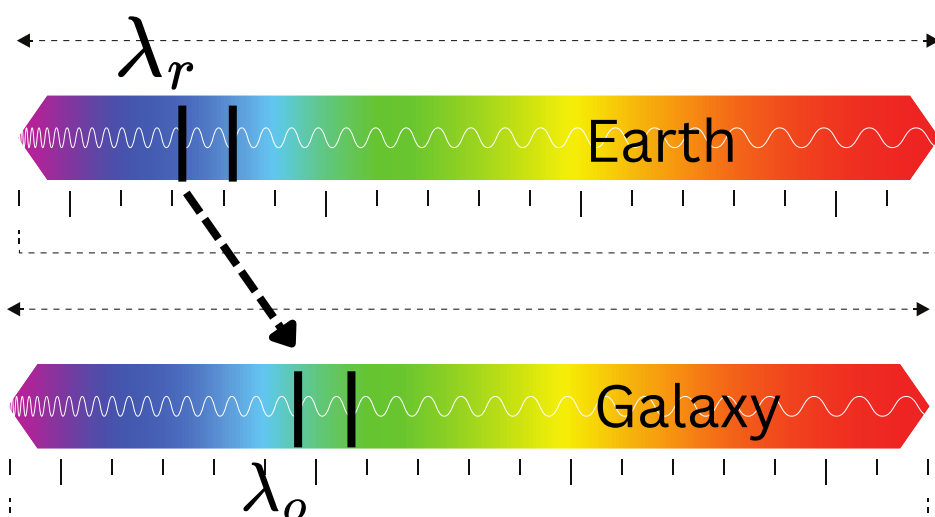


# How to find the distance of a galaxy in the Universe

# Redshift

1

Find the redshift from the spectral lines



$$z = \frac{(\lambda_o - \lambda_r)}{\lambda_r}$$

2

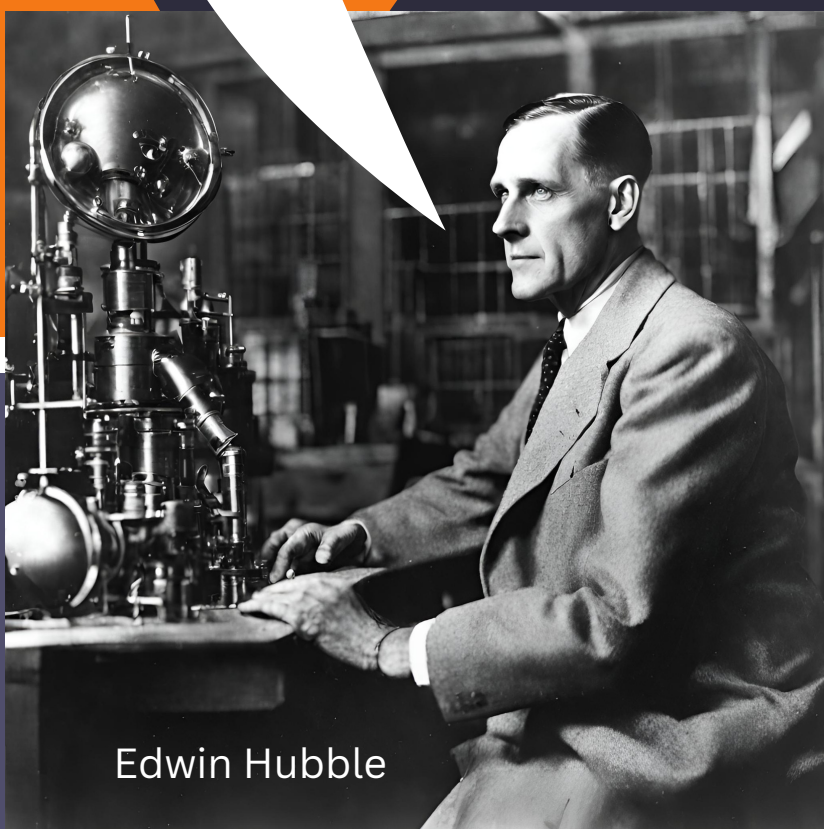
Find the recessional speed

$$v = zc$$

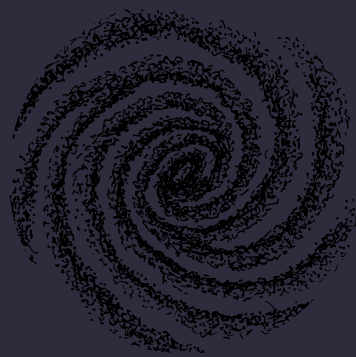
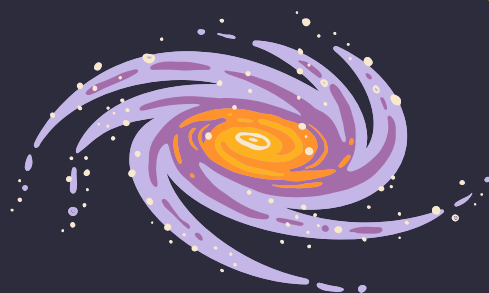
3

Then use Hubble's Law

$$d = \frac{v}{H_o}$$



Edwin Hubble



$$H_o = 2.34 \times 10^{-18} s^{-1}$$