

LP 19: Effet doppler

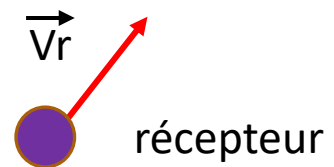
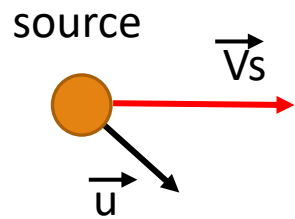


Source fixe, récepteur mobile

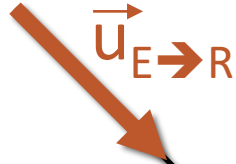
$$f_R = f_S \left(1 - \frac{v_R}{c}\right)$$

Cas général:

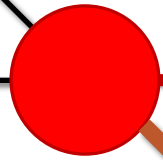
$$f_R = f_S \left[\frac{1 - \frac{1}{c} \vec{v}_R \cdot \vec{u}}{1 - \frac{1}{c} \vec{v}_S \cdot \vec{u}} \right]$$



Sonde



Sonde = émetteur fixe
Hématie = récepteur mobile

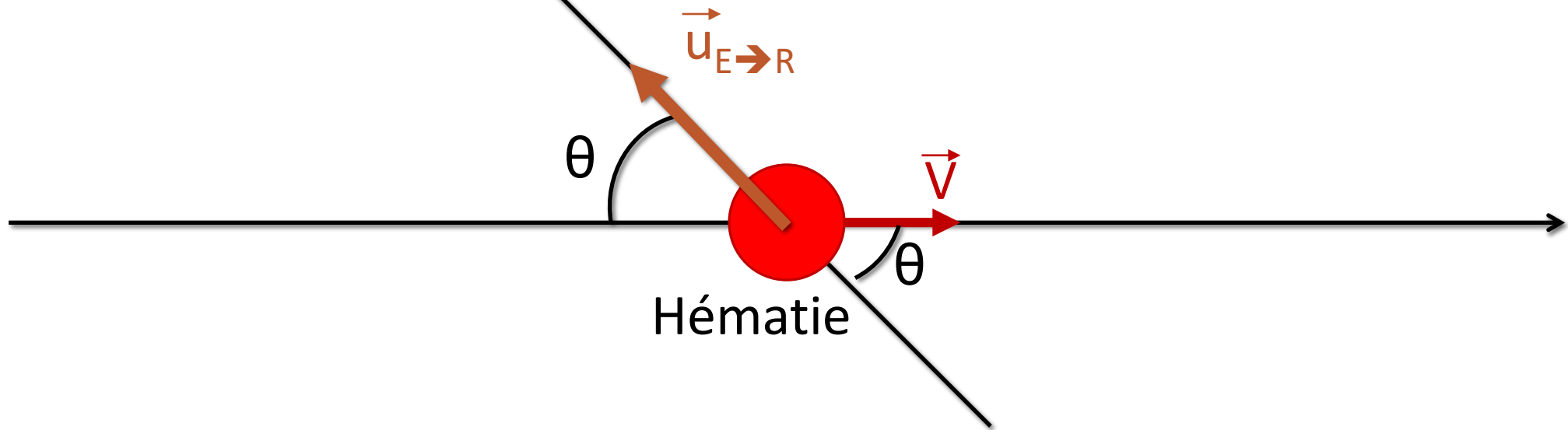


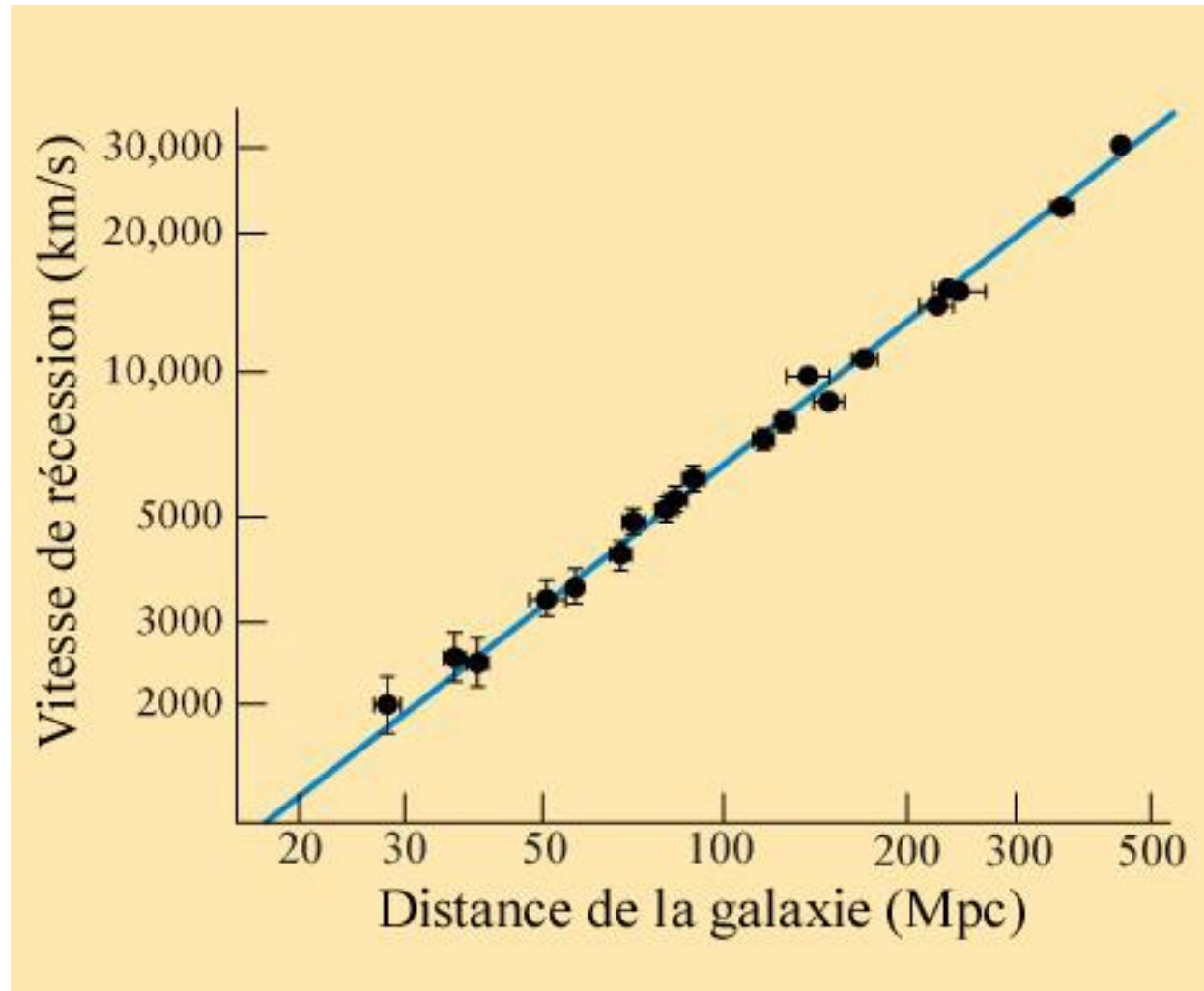
Hématie



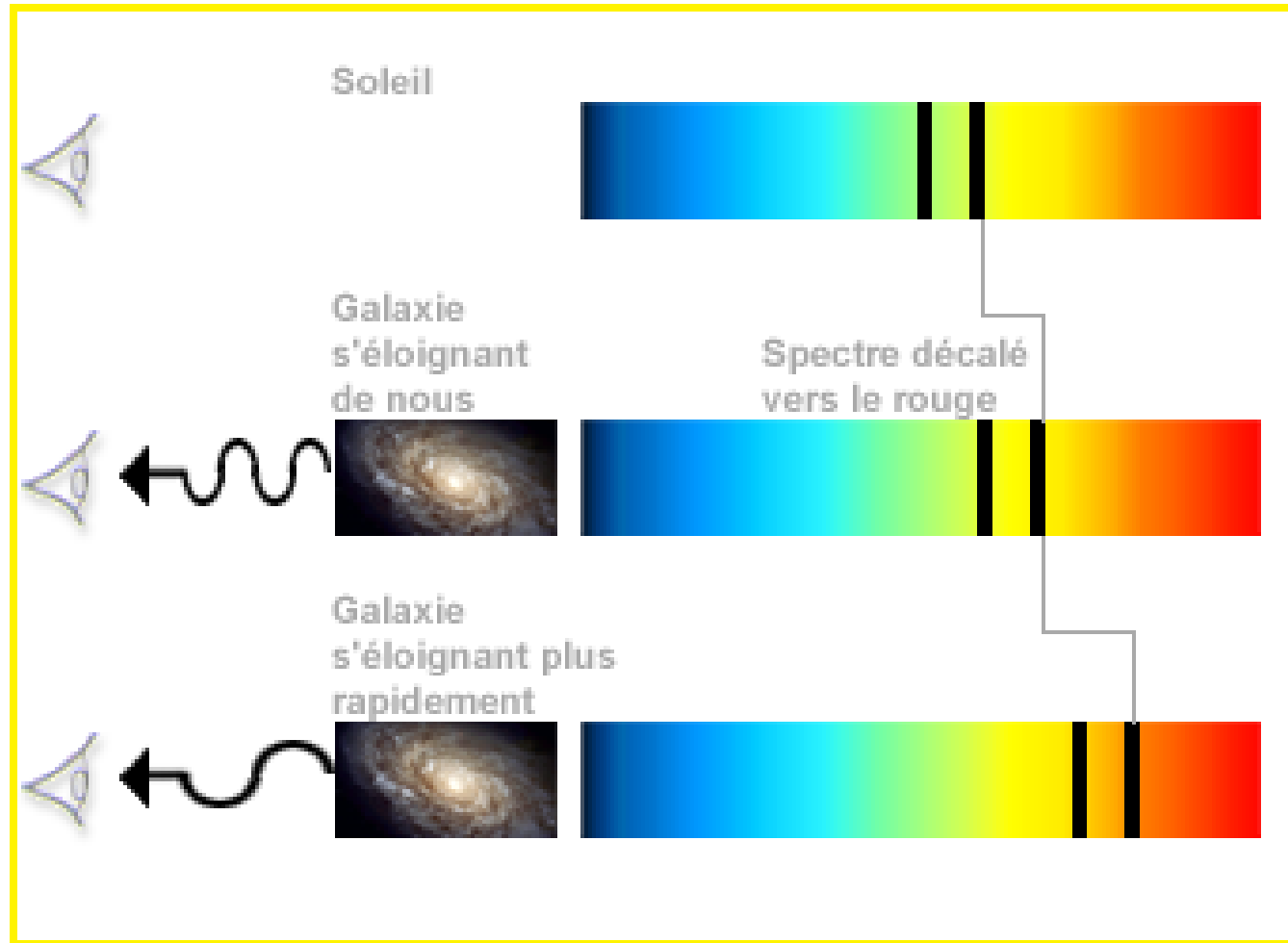
Sonde

Sonde = récepteur fixe
Hématie = émetteur mobile





Loi de Hubble



Effet Doppler-Fizeau