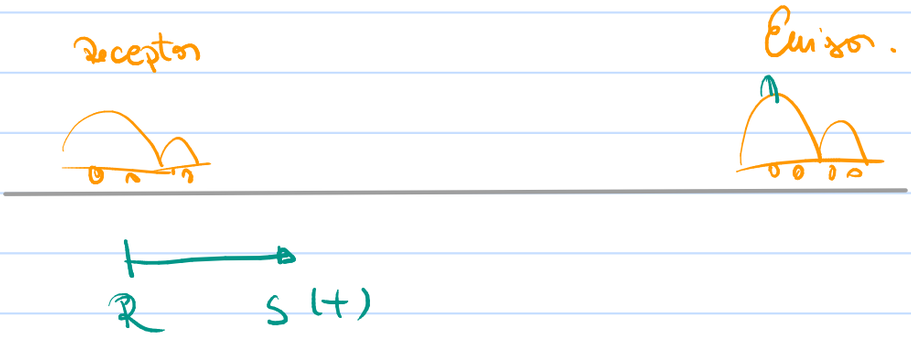


$v_s = 45\ m/s$

$v_R = 15\ m/s$

$f_s = 300\ Hz$

$f_R = ?$

$$f_R = \frac{v + v_R}{v + v_s} f_s$$

$$\rightarrow \quad f_R = \underbrace{\frac{340\ m/s + 15\ m/s}{340\ m/s + 45\ m/s}}_{>1} \ (300\ Hz)$$

$\rightarrow \quad f_R > f_s$

Receptor

Emisor.

Módulo

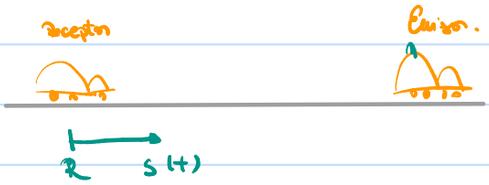
$v_R = 45\ m/s$

$v_S = 15\ m/s$

$f_S = 300\ Hz$

$f_R = ?$

Antes



$v_R = 45\ m/s$

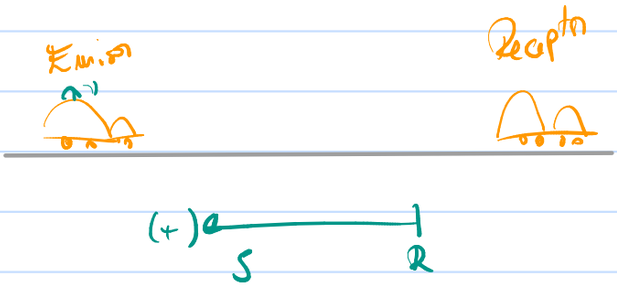
$v_S = 15\ m/s$

$$f_R = \frac{340\ m/s + 45\ m/s}{340 + 15\ m/s}\ (300\ Hz)$$

> 1

$\Rightarrow f_R > f_S$

Después



$v_R = -45\ m/s$

$v_S = -15\ m/s$

$$f_R = \frac{340\ m/s - 45\ m/s}{340\ m/s - 15\ m/s}\ (300\ Hz)$$

< 1

$\Rightarrow f_R < f_S$