

Dopplerov jav

- Pozorovateľ sa hýbe:

- $f_x = \frac{v_x}{\lambda}$
- $f_1 = \frac{v+u}{\lambda}$
- $f_1 = \frac{v+u}{\frac{v}{f}} = \frac{v+u}{u} f$
- **Približuje sa:**
 - $f_1 = \left(1 + \frac{u}{v}\right) f$
- **Oddiaľuje sa:**
 - $f_1 = \left(1 - \frac{u}{v}\right) f$

- Zdroj sa hýbe

- $\lambda_1 = \frac{v+w}{f}$
- $f_1 = \frac{v}{\lambda_1} = \frac{v}{\frac{v+w}{f}} = \frac{v}{v+w} f$
- $f_1 = \left(\frac{v+w}{v}\right)^{-1} f$
- **Približuje sa:**
 - $f_1 = \left(1 + \frac{w}{v}\right)^{-1} f$
- **Oddiaľuje sa:**
 - $f_1 = \left(1 - \frac{w}{v}\right)^{-1} f$