Time of flight diffractometer

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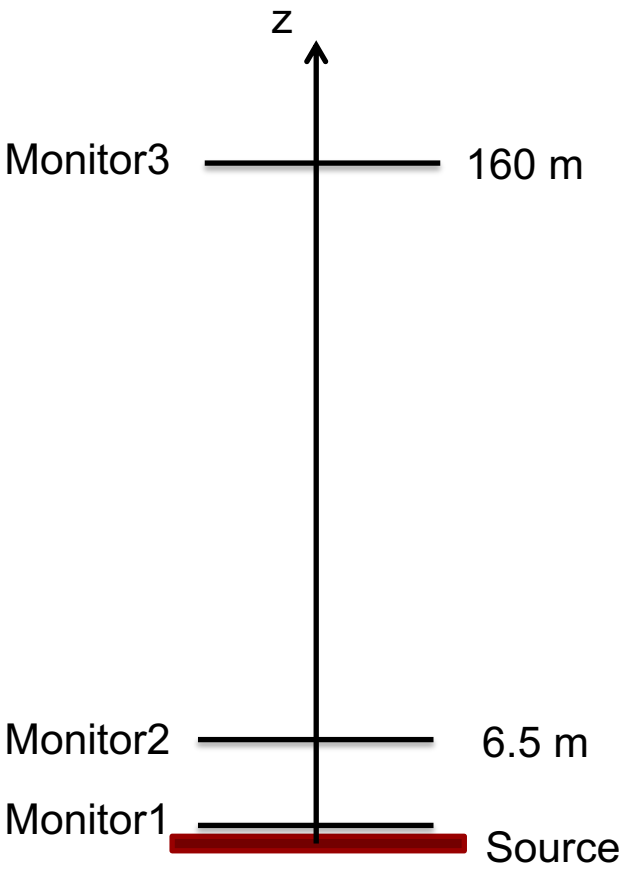
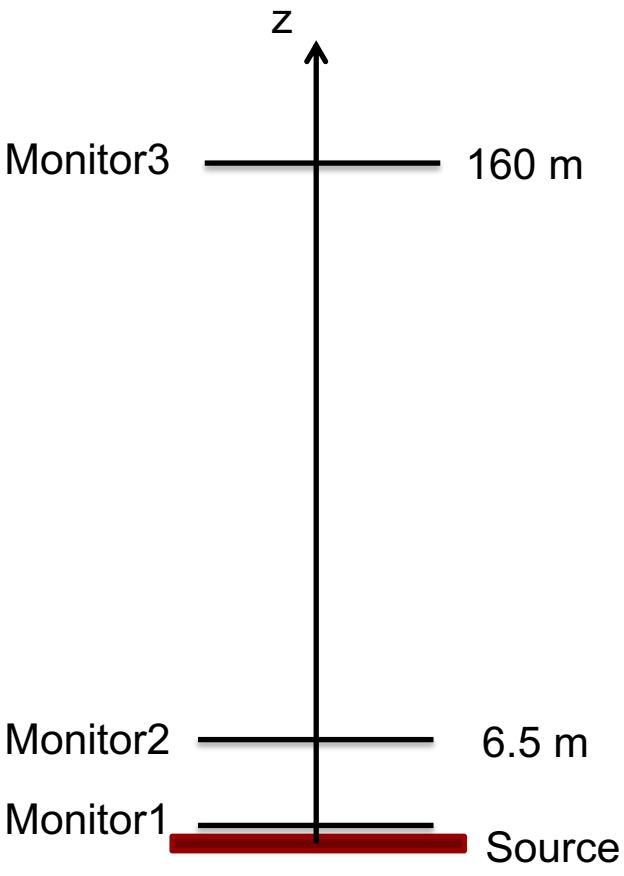
Larger exercise – More time

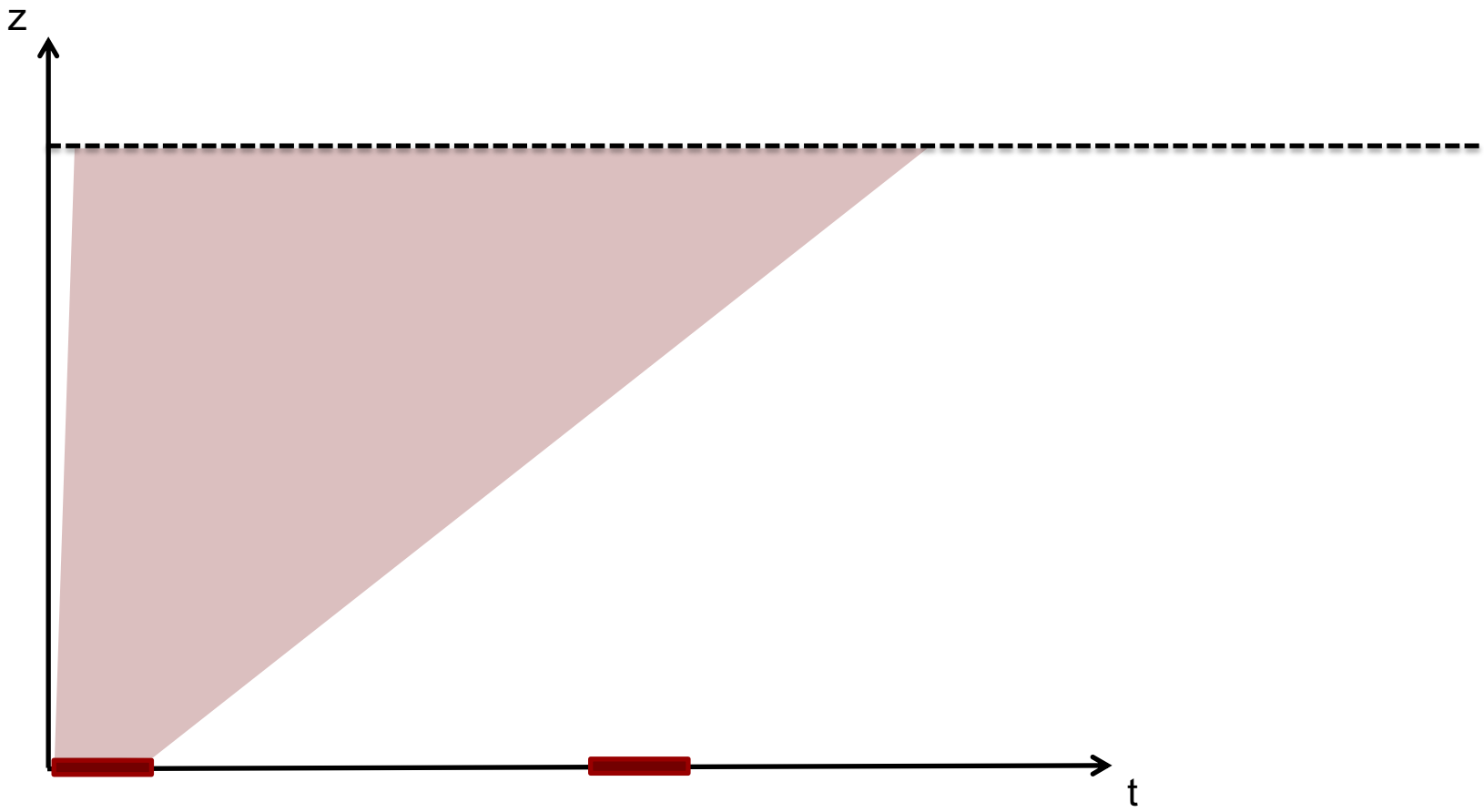
- Build a time of flight diffractometer
  - Starting from basics
  - Get results early
- Do basic calculations on time of flight considerations
- Do basic data analysis
- Work with resolution

Time of flight

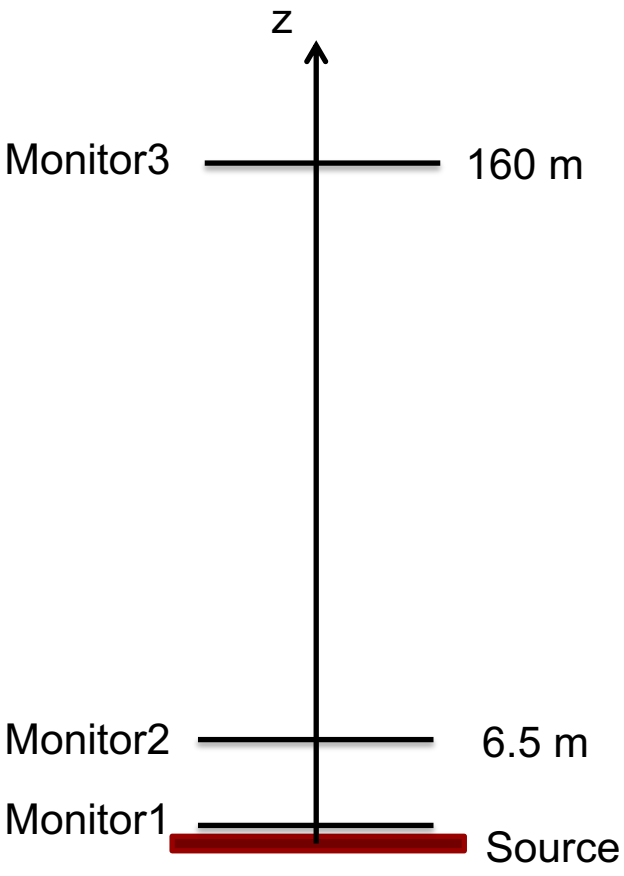


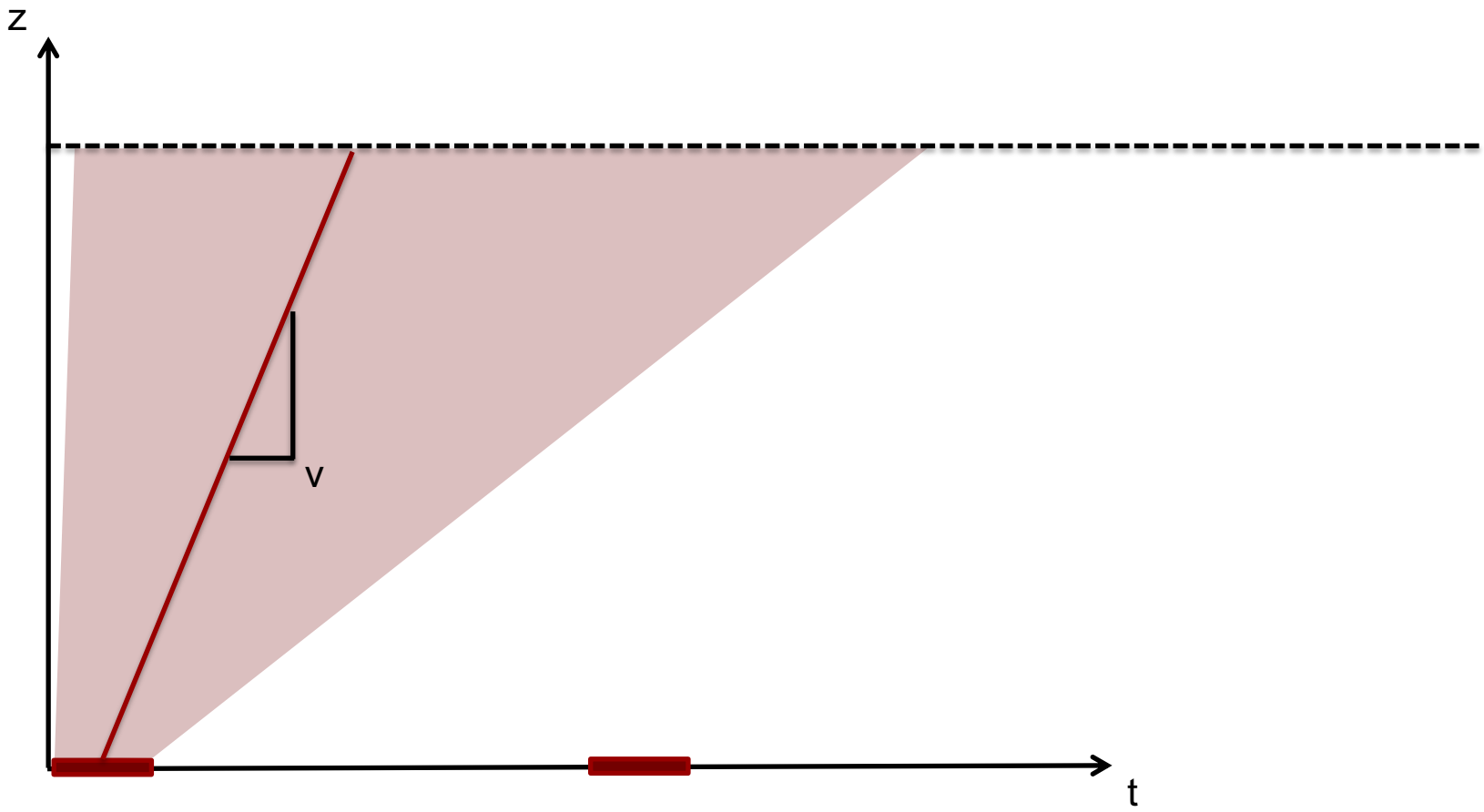
Time of flight



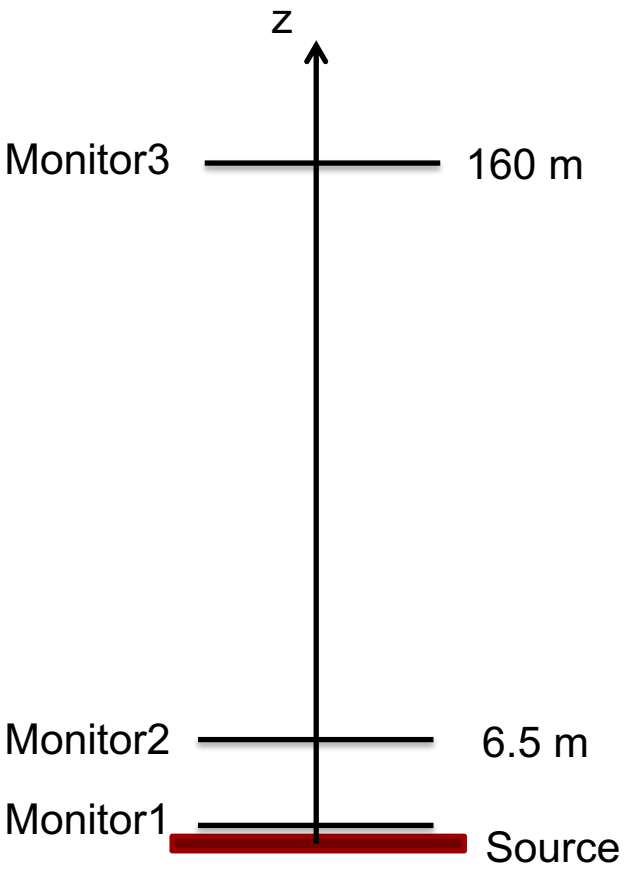


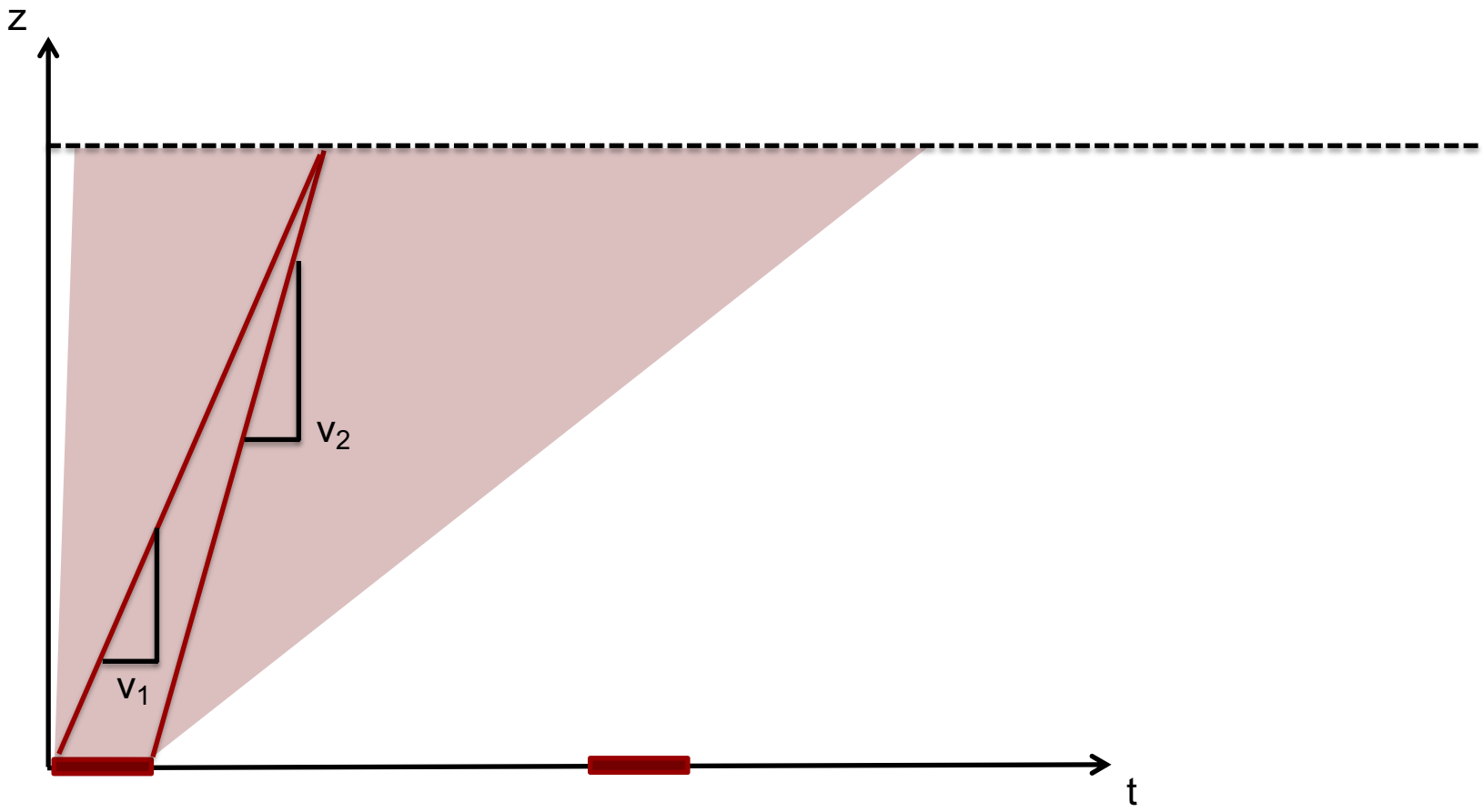
Time of flight



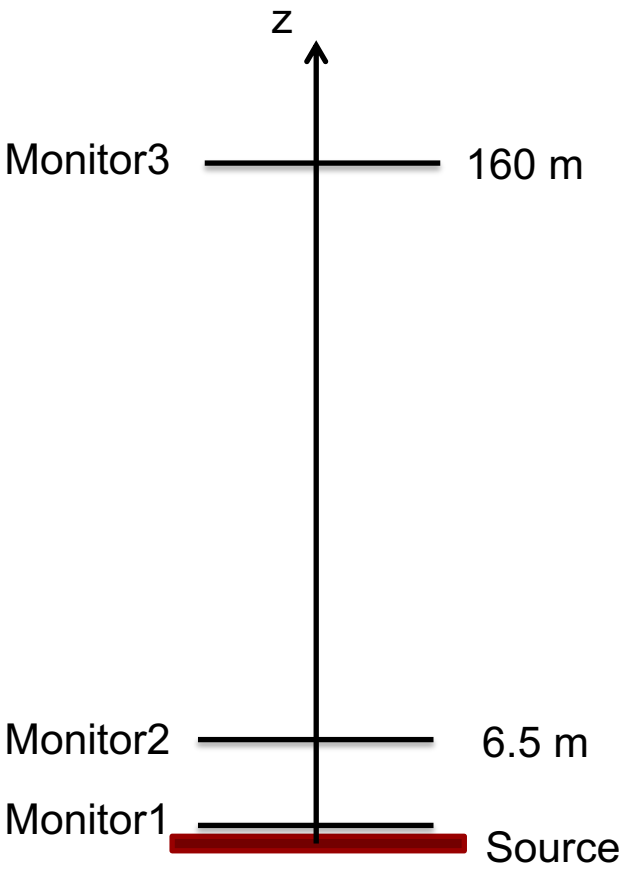


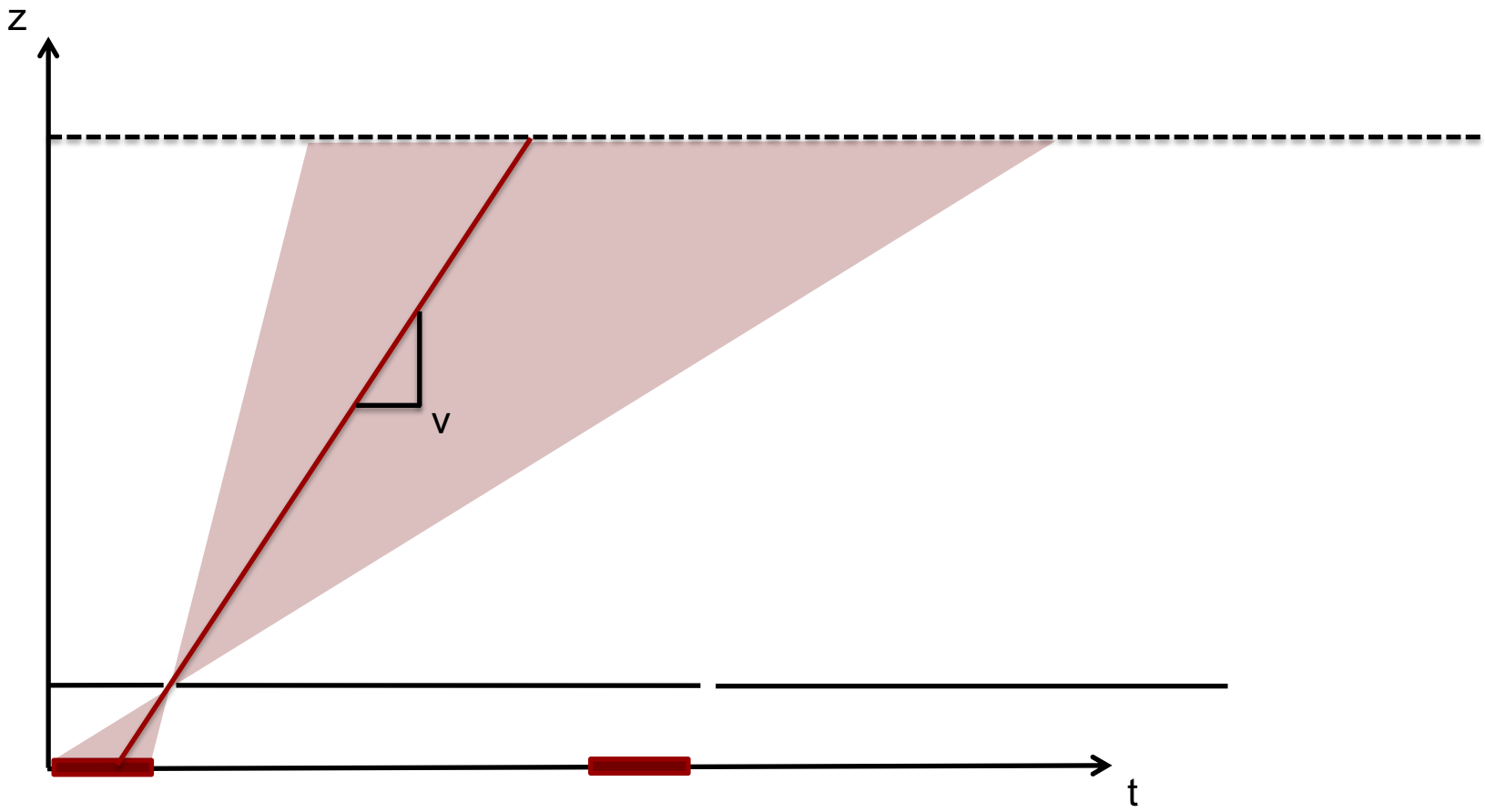
Time of flight



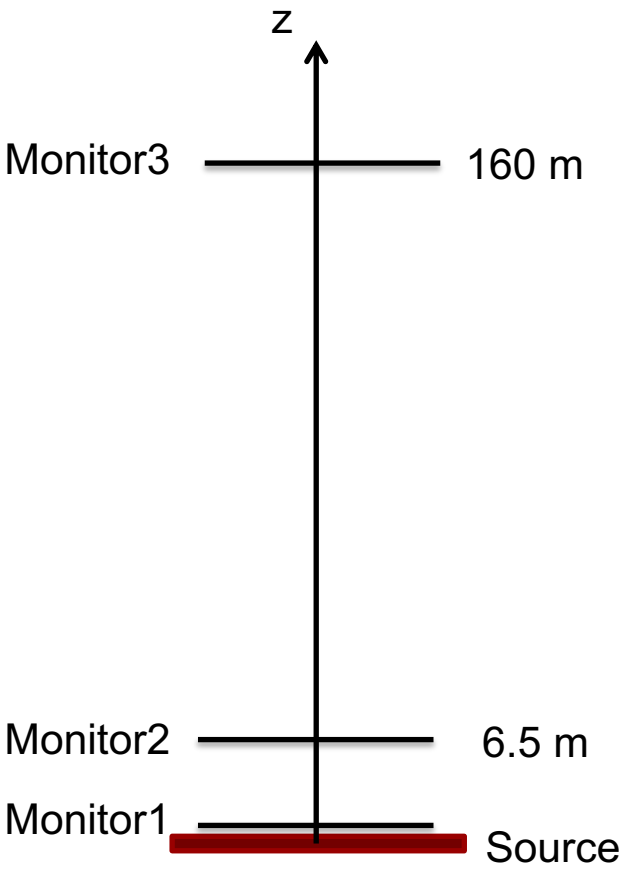


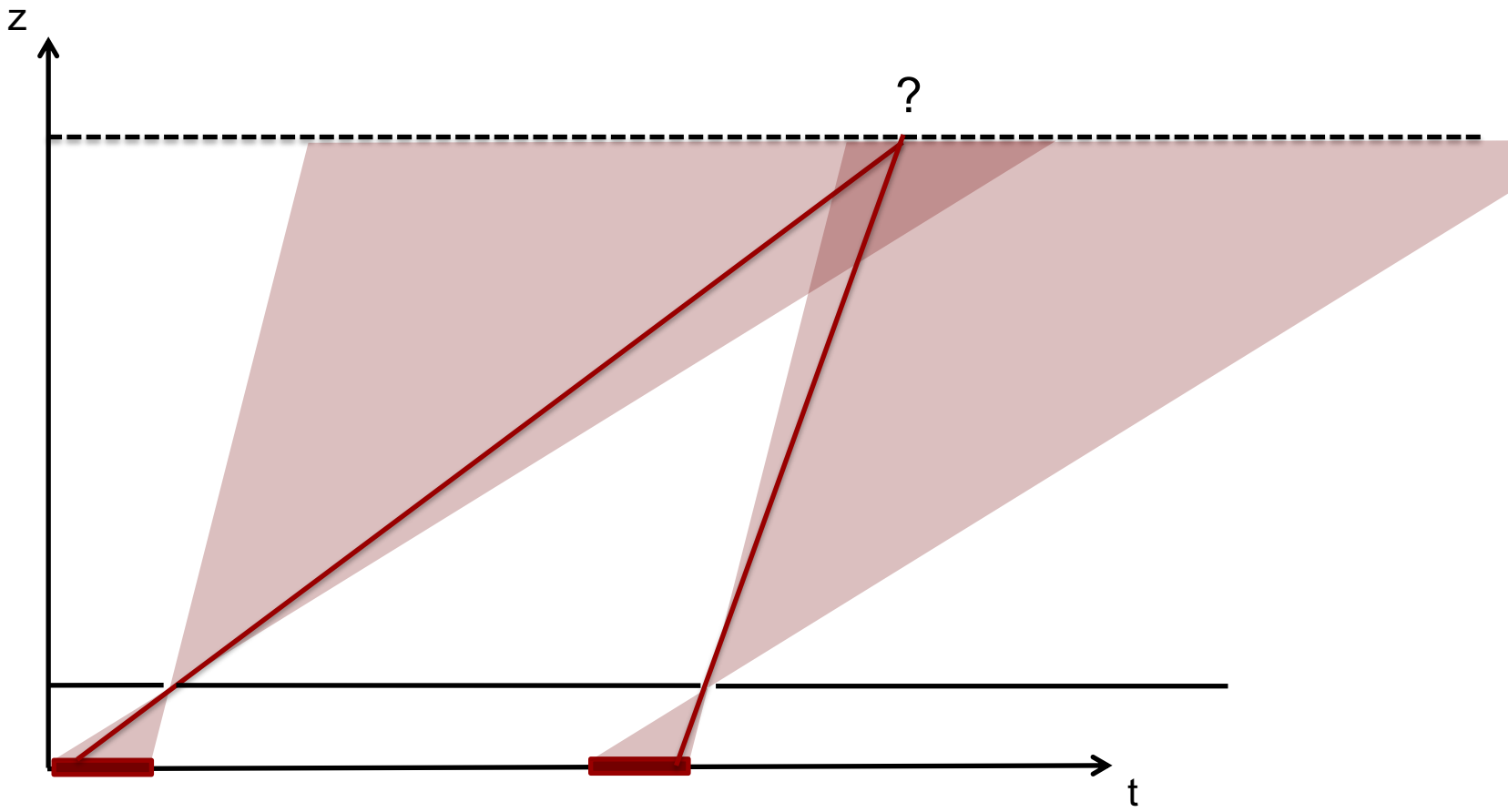
Time of flight



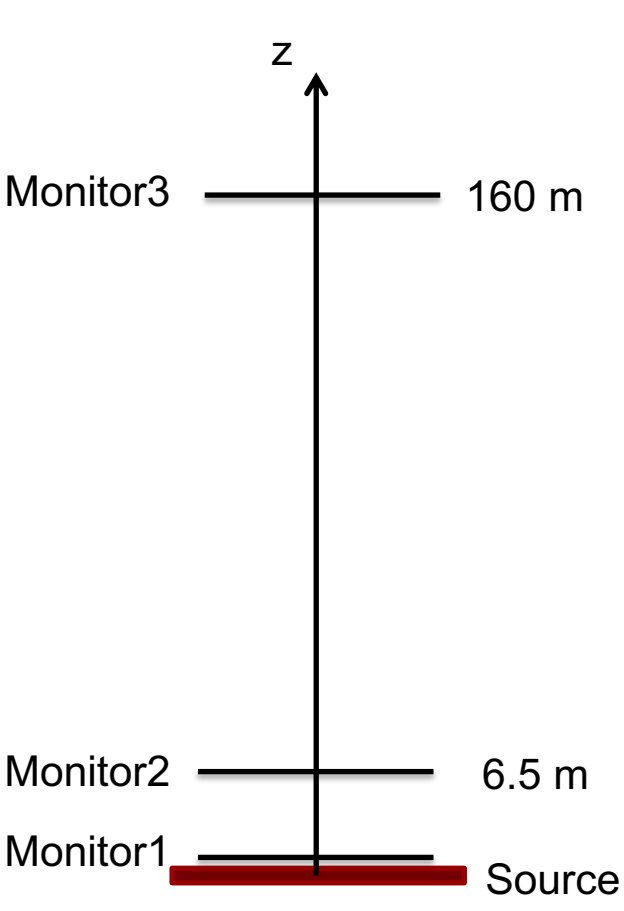


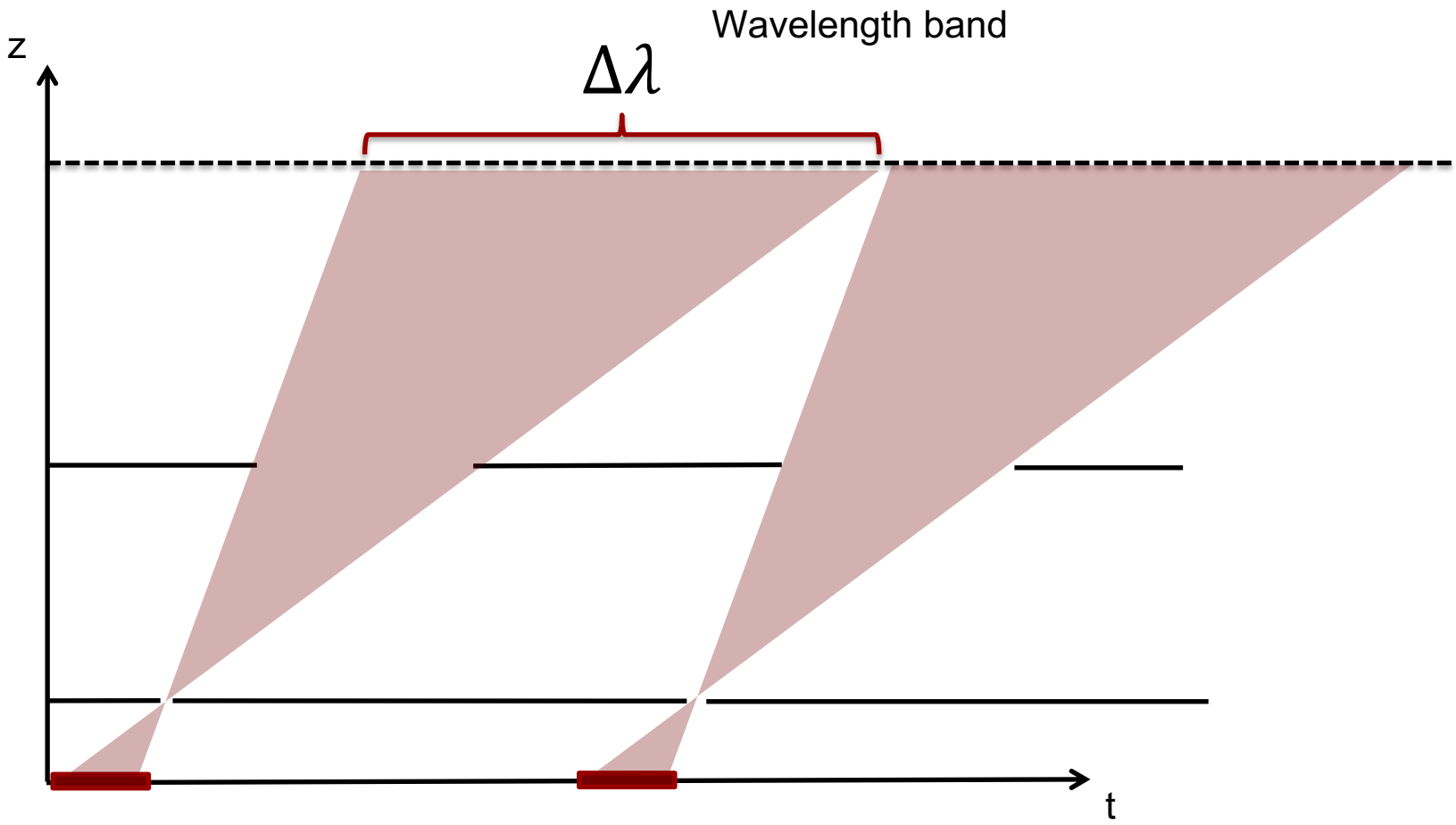
Time of flight





Time of flight





Solution on github, use if you are stuck

Time of flight powder exercise

- Start with instrument file provided on github

- First steps is just playing with timing
- Calculate the wavelength band
- Add sample and detector
- Calculate scattering vector from scattering angle and timing
- Calculate resolution
- Improve resolution
- Improve realism