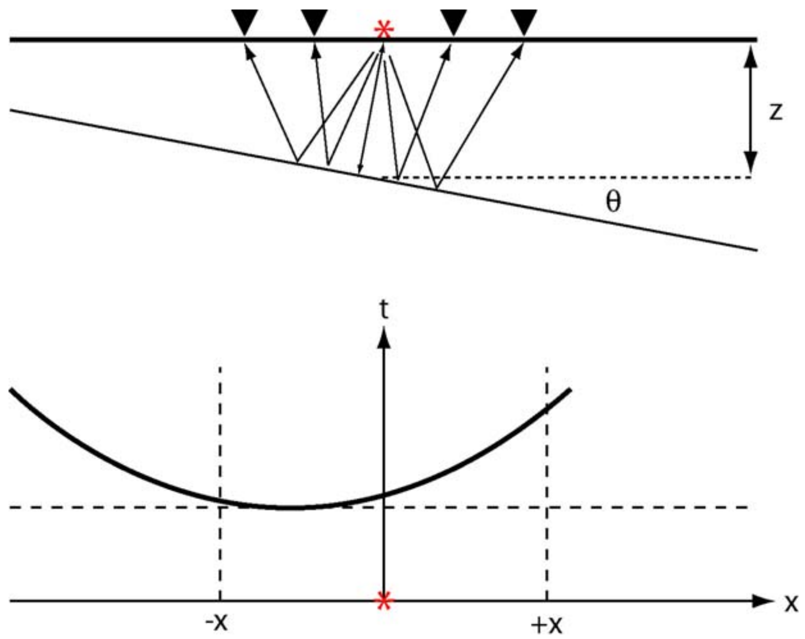
C2.4 Travel time curve for a dipping reflector



$$t = \frac{\sqrt{x^2 + 4z^2 + 4xz\sin\theta}}{v_1}$$

- *t(x)* is greater than *t(-x)* and the travel time curve is asymmetric about $x = 0$
- the minimum travel time does not occur at $x = 0$ m (why?)
- also note that the reflection received at $x = 0$ m did not originate beneath $x = 0$.
- To account for this effect a technique called **migration** is used. More on this later!
  Using the same approach as in C2.1, we can show that

$$t \approx t_0 + \frac{(x^2 + 4xz\sin\theta)}{2v_1^2 t_0}$$

The **dip moveout** is defined as $\Delta T_d = t_x - t_{-x} = \dfrac{2x\sin\theta}{v_1}$