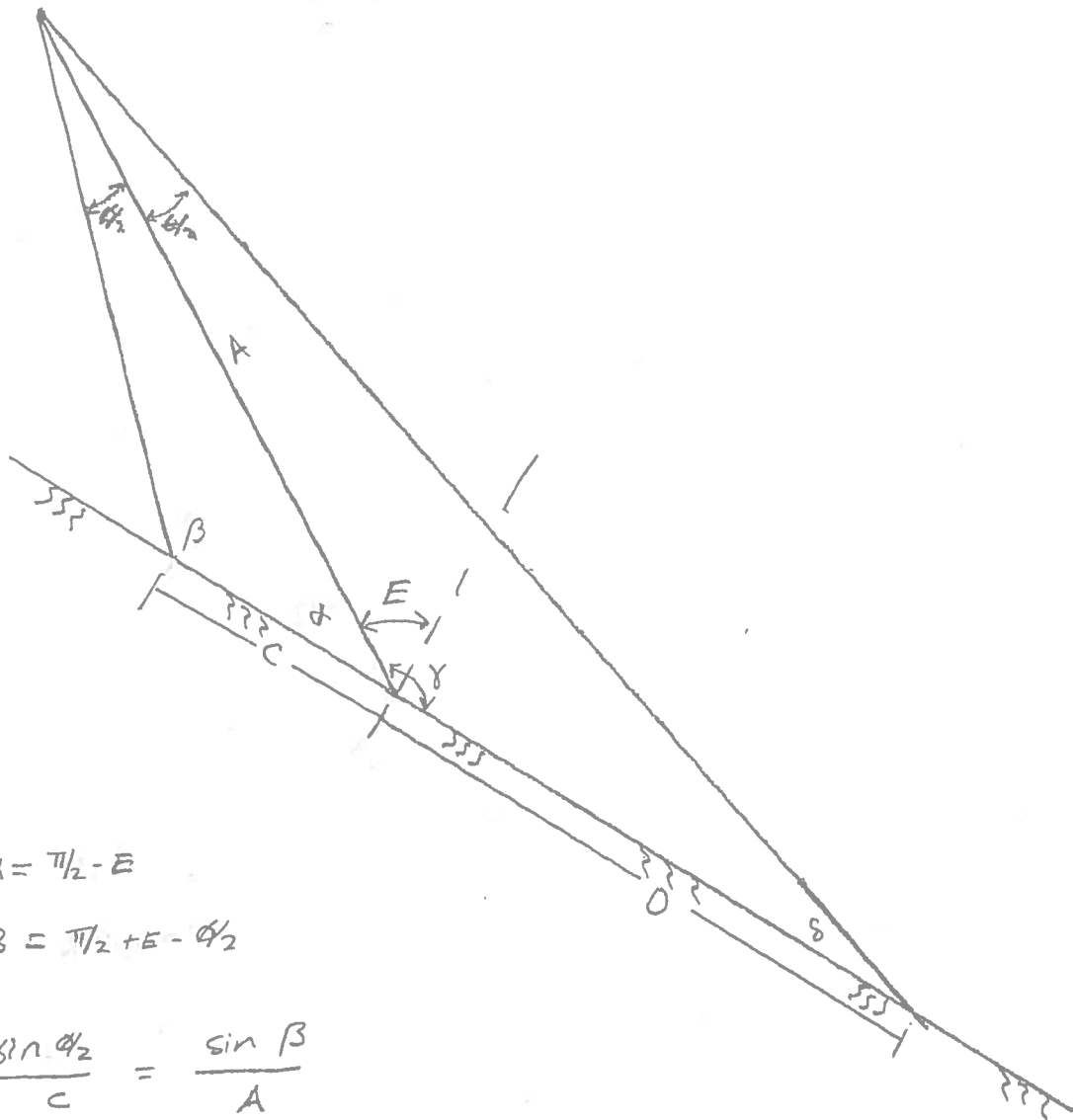Notes from Orrin
on computing
resolution.

modeling Ground as linear

$$\alpha = \pi/2 - E$$

$$\beta = \pi/2 + E - \phi/2$$

$$\frac{\sin \phi/2}{C} = \frac{\sin \beta}{A}$$

$$C = \frac{A \sin \phi/2}{\sin \beta} \approx \frac{A \phi/2}{\sin \beta}$$

$$\gamma = E + \pi/2$$

$$\delta = \pi/2 - E - \phi/2$$

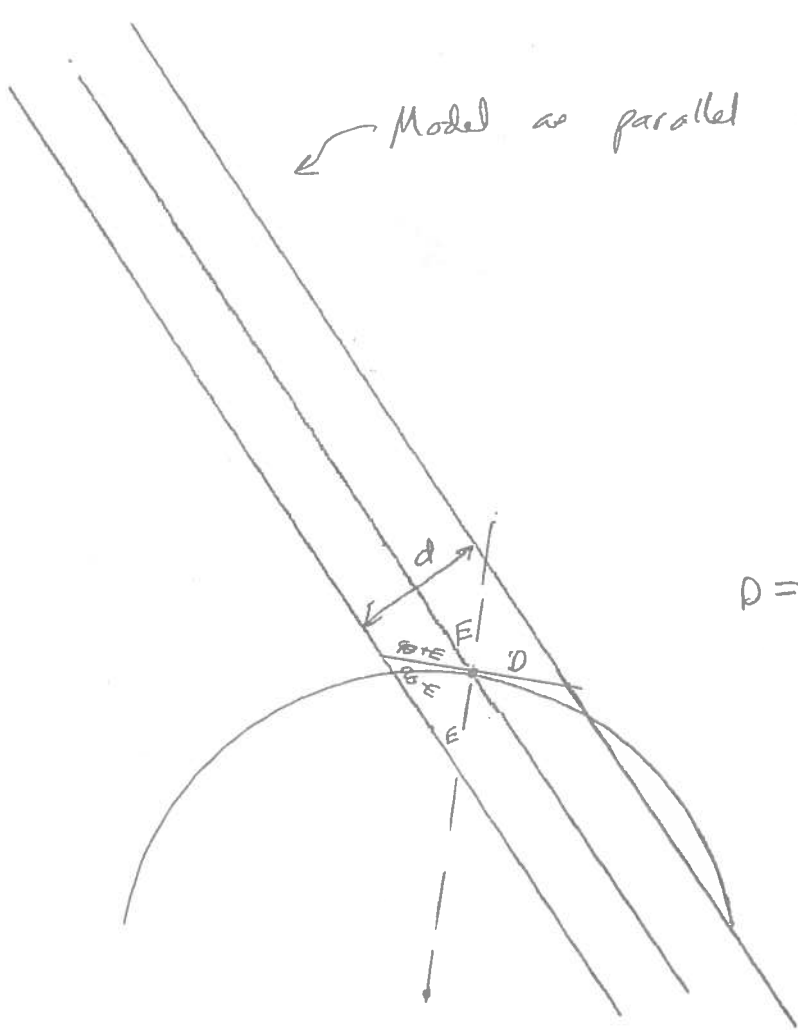Total distance $= C + D = \dfrac{A \phi/2}{\sin \beta} + \dfrac{A \phi/2}{\sin \gamma}$

$$\frac{\sin \gamma}{A} \approx \frac{\phi/2 \ (rad)}{D}$$

$$D \approx \frac{A \phi/2}{\sin \gamma}$$

Note $\sin \beta \Rightarrow 0$ as $E \Rightarrow 90°$

$\sin \gamma \Rightarrow 0$ as $E \Rightarrow 90°$

Model as parallel rays

$$D = \frac{d}{\sin(90+E)} = \frac{d}{\cos E}$$

Note denomenator approches 0 as $E \Rightarrow 90$