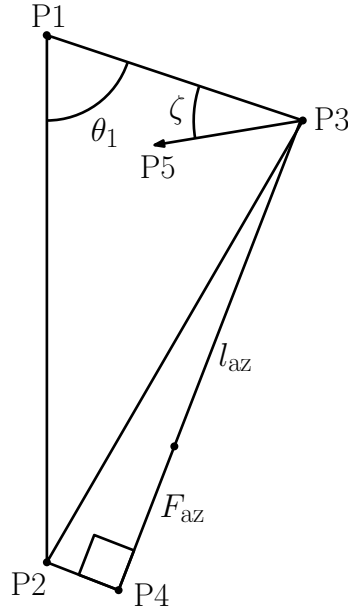


Geometría de la Antena de 3.5 m

Azimuth

Puntos fijos: P1, P2 Distancia variable: D_{34} , D_{23}



- P1: Anclaje principal
- P2: Anclaje motor
- P3: Anclaje sinfín/Eje Antena
- P4: Abrazadera sobre el motor
- P5: Foco del telescopio
- F_{az} = Longitud fija del motor (housing) desde P4
- l_{az} = Longitud del sinfín

$$D_{23}^2 = D_{12}^2 + D_{13}^2 - 2D_{12}D_{13} \cos \theta_1$$

$$D_{34} = F_{az} + l_{az}$$

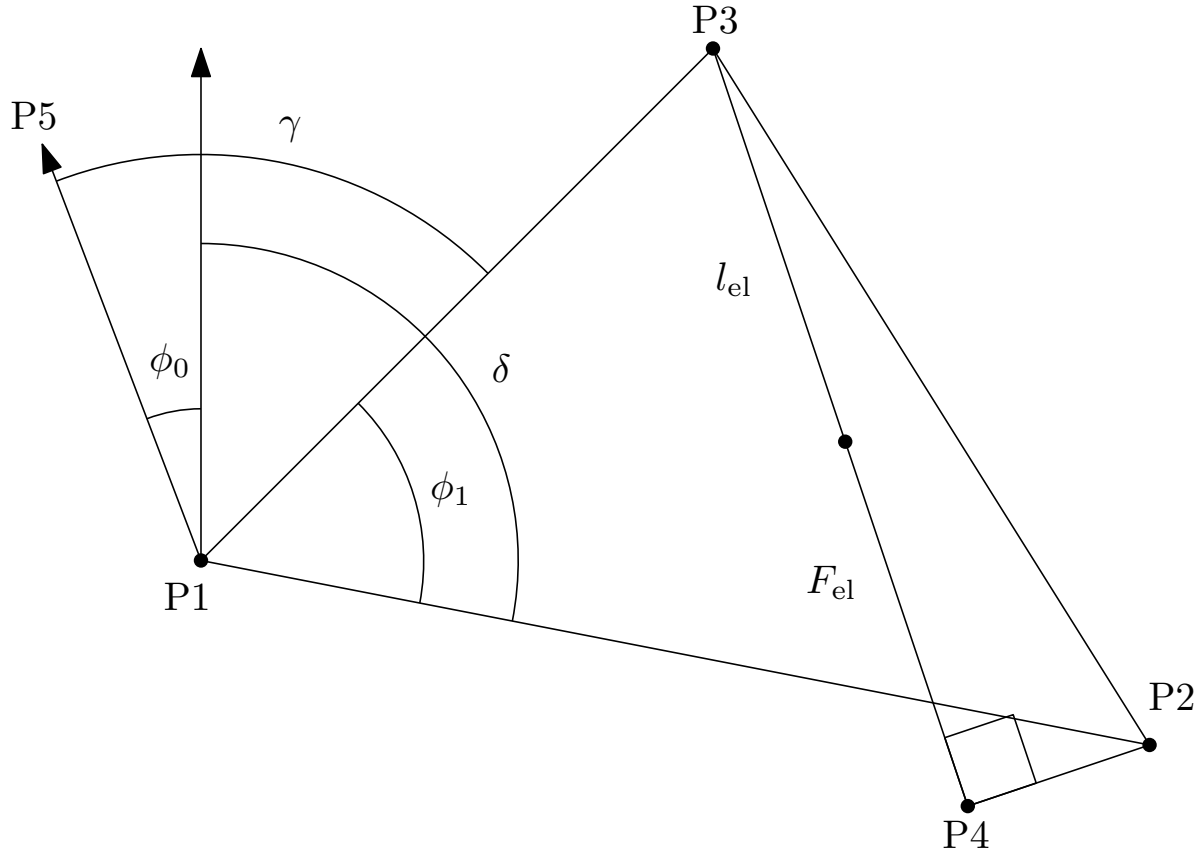
$$D_{23}^2 = D_{24}^2 + (F_{az} + l_{az})^2$$

$$\cos \theta_1 = \frac{D_{12}^2 + D_{13}^2 - D_{24}^2 - (F_{az} + l_{az})^2}{2D_{12}D_{13}}$$

$$\theta_1(l_{az}) = \cos^{-1} \left(\frac{D_{12}^2 + D_{13}^2 - D_{24}^2 - (F_{az} + l_{az})^2}{2D_{12}D_{13}} \right) + \zeta$$

Elevation

Puntos fijos: P1, P2 Distancia variable: D_{34} , D_{23}



- P1: Anclaje principal
- P2: Anclaje sinfín-Eje Plato
- P3: Anclaje motor
- P4: Abrazadera sobre el motor
- P5: Foco del Telescopio
- F_{el} = Longitud fija del motor (housing) desde P4
- l_{el} = Longitud del sinfín

$$\phi_1 + \gamma = \phi_0 + \delta$$

$$\phi_0 = \phi_1 + \gamma - \delta$$

$$D_{23}^2 = (F_{el} + l_{el})^2 + D_{24}^2$$

$$D_{23}^2 = D_{12}^2 + D_{13}^2 - 2D_{12}D_{13} \cos \phi_1$$

$$\cos \phi_1 = \frac{D_{12}^2 + D_{13}^2 - (F_{el} + l_{el})^2 - D_{24}^2}{2D_{12}D_{13}}$$

$$\phi_0(l_{el}) = \cos^{-1} \left(\frac{D_{12}^2 + D_{13}^2 - (F_{el} + l_{el})^2 - D_{24}^2}{2D_{12}D_{13}} \right) + \gamma - \delta$$