

FULL PROBLEMNonlinear in ϕ_γ

$$\mathbf{p} = [\rho_x \ \rho_y \ \theta_E \ a \ b]^\top$$

Matrix coefficients depend
on ϕ_γ nonlinearly:

$$\begin{aligned} &\cos(2(\phi - \phi_\gamma)) \\ &\sin(2(\phi - \phi_\gamma)) \end{aligned}$$

Fix ϕ_γ **CONDITIONAL PROBLEM**

Linear in remaining parameters!

$$\mathbf{p}_{\text{linear}} = [\beta_x \ \beta_y \ \theta_E \ a \ b]$$

$$\mathbf{A}(\phi_\gamma) \cdot \mathbf{p}_{\text{linear}} = \mathbf{b}$$

For fixed ϕ_γ , \mathbf{A} is constant!
→ Solve exactly with linear algebra

*This is CONDITIONAL LINEARITY:
Linear in amplitudes when phase is fixed*