

Figure 1: Polynomial curve fitting models in PRML: (a) Least Square Estimation in §1.1; (b) Maximum Likelihood Estimation (point estimation) in §2.5; (c) Maximum-a-Posteriori estimation (point estimation) in §2.5 and full bayesian approach in §2.6

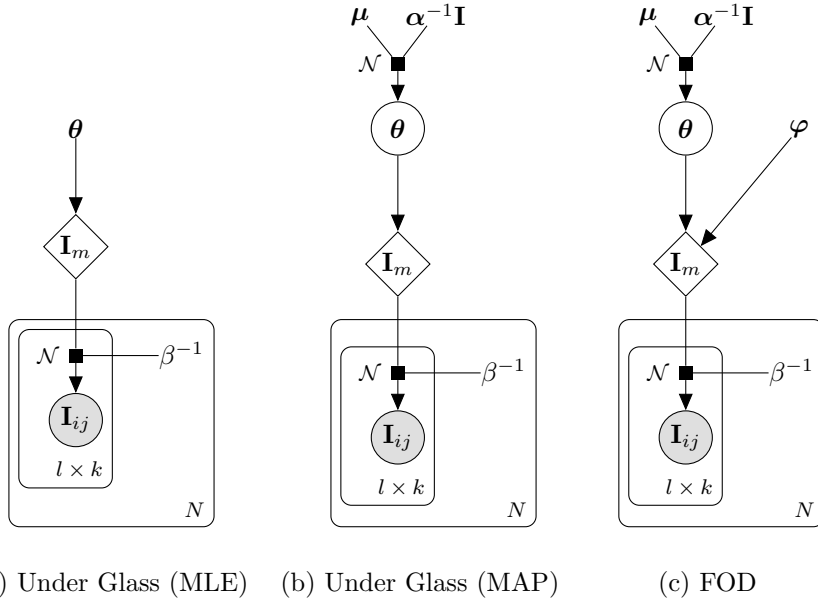


Figure 2: MAPIS models: $\theta = \{\text{pitch, angle, tlx, tly}\}$, $\alpha^{-1}\mathbf{I}$ is the covariance matrix for θ ; \mathbf{I}_m is the 8-bit grey image generated by the model (the image dimension is $l \times k$); \mathbf{I}_{ij} are observed pixel intensity at (i, j) in the image captured by sensor; β^{-1} is the variance of Gaussian noise added to each pixel of \mathbf{I}_m (due to sensor noise and other effects). (a) MLE point estimation for θ ; (b) MAP point estimation for θ ; (c) Adding $\varphi = \{?\}$ as the cause for biased noise due to reflections...