

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

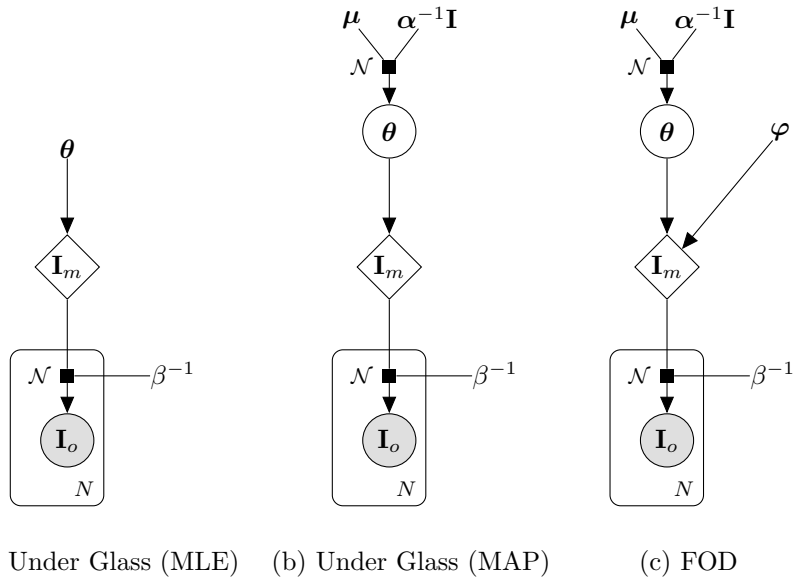


Figure 2: MAPIS models:  $\boldsymbol{\theta} = \{\text{pitch, angle, tlx, tly}\}$ ,  $\alpha^{-1}\mathbf{I}$  is the covariance matrix for  $\boldsymbol{\theta}$ ;  $\mathbf{I}_m$  is the image generated by the model (it's supposed that the number of columns and rows of pinholes are known);  $\mathbf{I}_o$  are captured images by sensor;  $\beta^{-1}$  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  $\boldsymbol{\theta}$ ; (b) MAP point estimation for  $\boldsymbol{\theta}$ ; (c) Adding  $\boldsymbol{\varphi} = \{?\}$  as the cause for biased noise due to reflections...