

Observation vector
 \mathbf{y}

Forward model
 $\mathbf{y} = \mathbf{F}(\mathbf{x}) + \boldsymbol{\epsilon}$

a priori estimate
 $\mathbf{x}_a + \boldsymbol{\epsilon}_a$

Bayes'
theorem

“MAP solution”
“Optimal estimate”
“Retrieval”
 $\hat{\mathbf{x}} + \hat{\boldsymbol{\epsilon}}$