Active learning of constraints
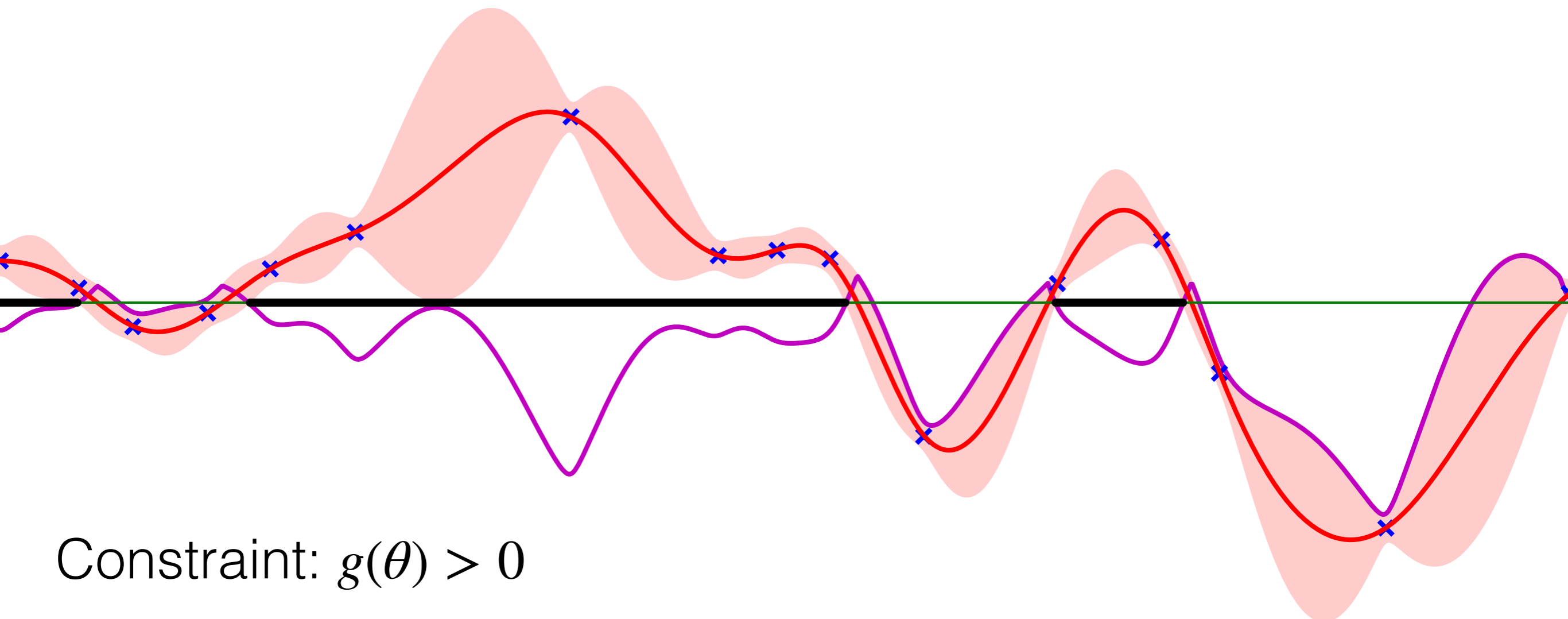
mean function $\mu(\theta)$

confidence interval $\mu(\theta) \pm 2\sigma(\theta)$

× observation $(\theta_i, g(\theta_i))$

#observations = 16

acquisition function
$$\phi(\theta) = 2\sigma(\theta) - |\mu(\theta)|$$

next: test action with parameter
$$\theta* = \text{argmax } \phi(\theta)$$

Constraint: $g(\theta) > 0$

Active selection is data efficient

Success rate of recommended 'pour'