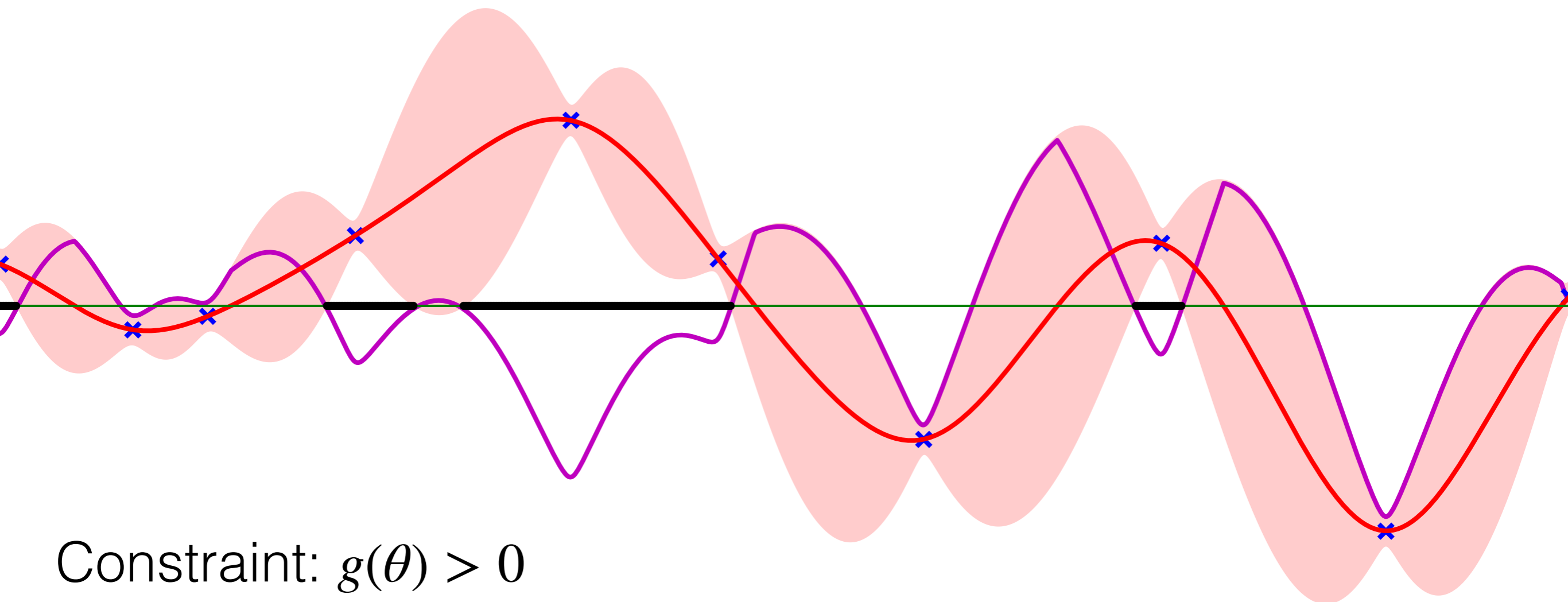


# Active learning of constraints

- mean function  $\mu(\theta)$
  - confidence interval  $\mu(\theta) \pm 2\sigma(\theta)$
  - × observation  $(\theta_i, g(\theta_i))$
- #observations = 10

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

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



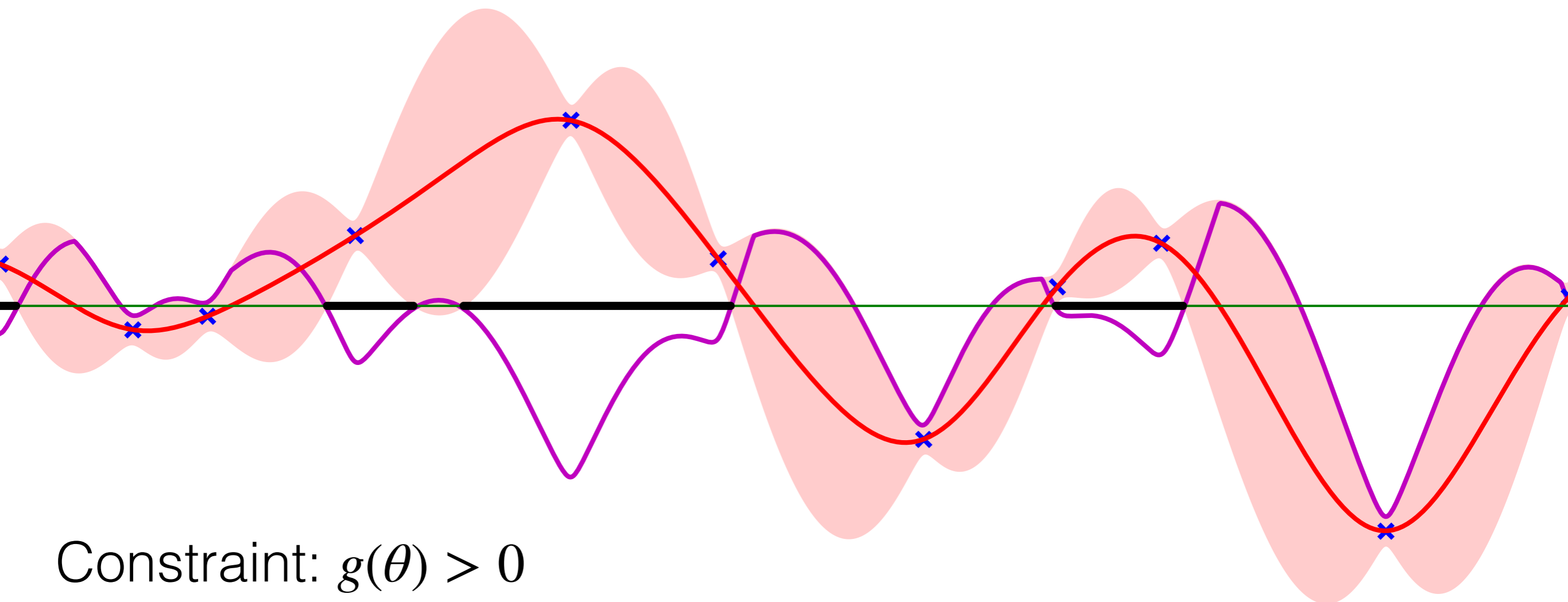
Constraint:  $g(\theta) > 0$

# Active learning of constraints

- mean function  $\mu(\theta)$
  - confidence interval  $\mu(\theta) \pm 2\sigma(\theta)$
  - × observation  $(\theta_i, g(\theta_i))$
- #observations = 11

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

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



Constraint:  $g(\theta) > 0$