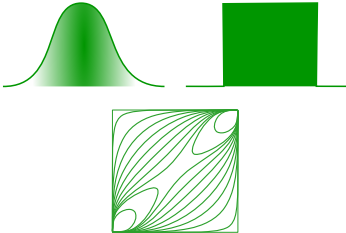


## Step C : Uncertainty Propagation

### Step B : Uncertainty Quantification

Modeling with probability distribution : direct methods, statistics, expertise.



### Step A : Study Specification

#### Input

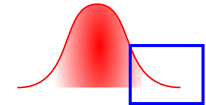
Uncertain :  $\mathbf{X}$   
Fixed :  $\mathbf{d}$

Model  
 $y=g(\mathbf{x},\mathbf{d})$

Output  
 $\mathbf{Y}=g(\mathbf{X})$

#### Quantity of interest

e.g.: variance, probability



### Step B' : Quantification of sources

Inverse methods, calibration, assimilation

#### Observed variables

$\mathbf{Y}_{\text{obs}}$

### Step C' : Sensitivity Analysis, Ranking