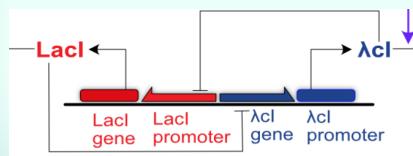
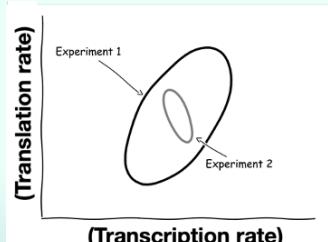


Creating, Saving, and Loading Reaction Models



Sequential Experimental Design



Solve Models

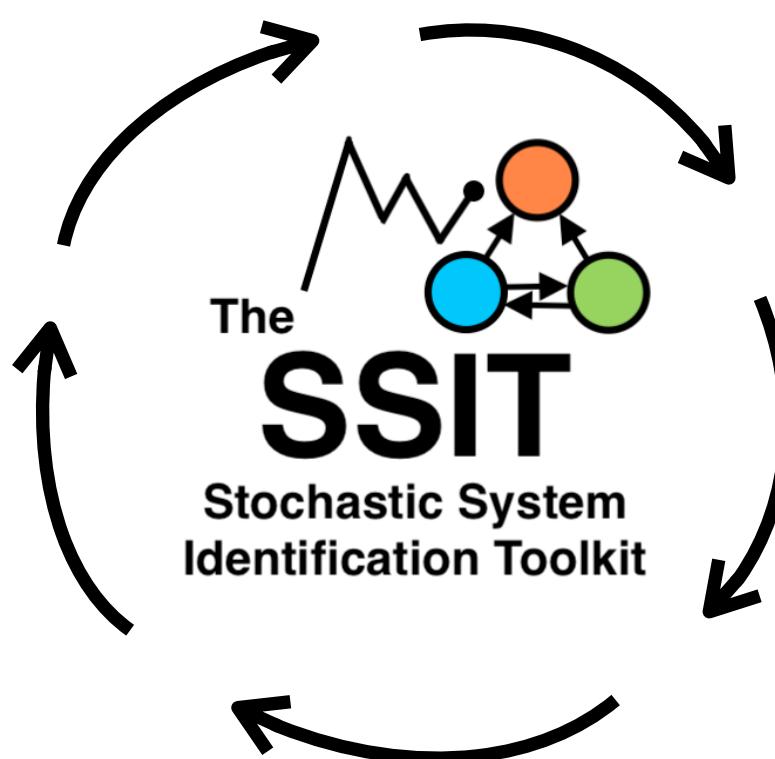
$$\frac{d}{dt} \mathbf{P} = \mathbf{AP}$$

Information Quantification

$$I_{ij}(\theta) = \mathbb{E}_{\mathbf{D} \in \mathcal{D}} \left\{ \frac{d \log L(\mathbf{D})}{d\theta_i} \frac{d \log L(\mathbf{D})}{d\theta_j} \right\}$$

$$I_{ij}(\theta) = \sum_{\mathbf{x} \in \mathcal{D}} \frac{\mathbf{s}_{ix} \mathbf{s}_{jx}}{P_x}$$

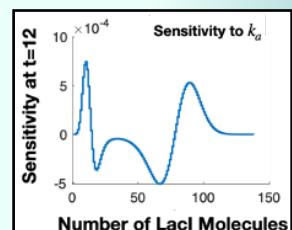
A 2D plot with axes labeled λ_1^{-1} and λ_2^{-1} . It shows two overlapping ellipses. A vector v_1 points from the center of the first ellipse to the second, and a vector v_2 points from the center of the second ellipse to the first.



Sensitivity Analysis

$$s_i(t) = \frac{\partial P(t)}{\partial \theta_i}$$

$$\frac{\partial}{\partial t} \begin{bmatrix} \mathbf{P} \\ \mathbf{s}_i \end{bmatrix} = \begin{bmatrix} \mathbf{A} & \mathbf{0} \\ \partial_{\theta_i} \mathbf{A} & \mathbf{A} \end{bmatrix} \begin{bmatrix} \mathbf{P} \\ \mathbf{s}_i \end{bmatrix}$$



Parameter Inference

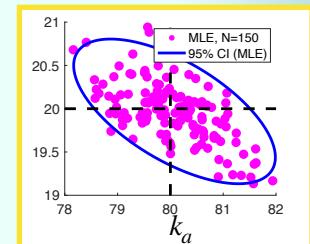
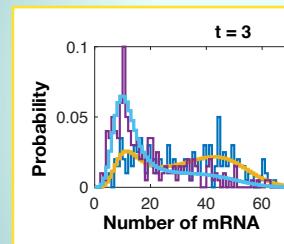


Image and Data Distortion Estimation

$$P^Y = C_{Y|X} P^X$$

