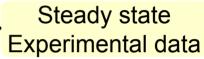
$$\dot{x} = \mathbf{S} v$$

$$y = h(\mathbf{x}, \mu, u)$$

Identify kinetic rate law formulations for each flux

$$v_i = f(\mathbf{x}, \theta, \mathbf{u})$$

Select reaction fluxes for identifiability analysis



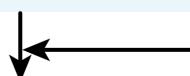
Formulate *p* nonlinear algebraic equations using steady state information from *p* experimental datasets



Solve equations to generate closed form expressions for each parameter for each flux

$$\theta_k = g_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u}) = \frac{N_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u})}{D_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u})}$$

$$k = 1, 2, ..., p$$



Experimental data set Combinations

Determine identifiable/nonidentifiable parameters for each flux for each experimental dataset

$$D_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u}) \neq 0$$
 or $\frac{N_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u})}{D_k(\mathbf{v}_i, \mathbf{x}, \mathbf{u})} \geq 0$

Identifiability Analysis