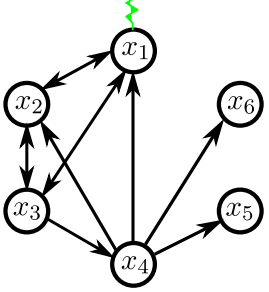
$$\dot{\boldsymbol{x}} = \underbrace{\begin{pmatrix} k_t B_{max} - k_t x_1 - k_{on} x_1 x_2 + k_{off} x_3 + k_{ex} x_4 \\ -k_{on} x_1 x_2 + k_{off} x_3 + k_{ex} x_4 \\ k_{on} x_1 x_2 - k_{off} x_3 - k_e x_3 \\ k_e x_3 - k_{ex} x_4 - k_{di} x_4 - k_{de} x_4 \\ k_{di} x_4 \\ k_{de} x_4 \end{pmatrix}}_{\boldsymbol{f}(\boldsymbol{x})} \begin{matrix} \text{EpoR} \\ \text{Epo} \\ \text{Epo-EpoR} \\ \text{Epo-EpoR}_i \\ \text{dEpo}_i \\ \text{dEpo}_e \end{matrix}$$



$$\boldsymbol{y} = \underbrace{\begin{pmatrix} \kappa_1 (x_2 + 2x_6) \\ \kappa_2 (x_3) \\ \kappa_3 (x_4 + x_5) \end{pmatrix}}_{\boldsymbol{h}(\boldsymbol{x})} \begin{matrix} \text{Epo} + \text{dEpo}_i \\ \text{Epo-EpoR} \\ \text{Epo-EpoR}_i + \text{dEpo}_i \end{matrix}$$

i