

$$1-1) p(x_i, A) = x_1 \exp\left(A_{12} \left(\frac{A_{21} x_2}{A_{12} x_1 + A_{21} x_2}\right)^2\right) p_i^{\text{out}} + x_2 \exp\left(A_{21} \left(\frac{A_{12} x_1}{A_{12} x_1 + A_{21} x_2}\right)^2\right) p_i^{\text{out}}$$

$$\min_{A_{12}, A_{21}} \sum_{i=1}^n (p(x_i, A) - p)^2$$