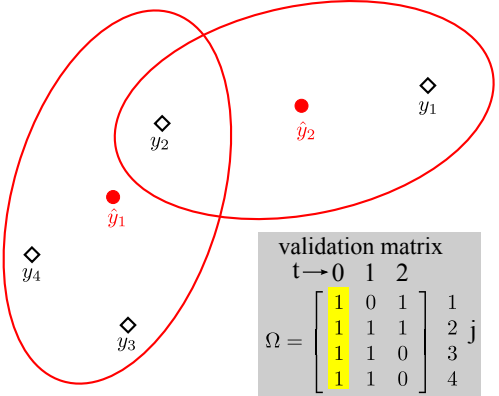

validation matrix

t→ 0 1 2

$$\Omega = \begin{bmatrix} 1 & 0 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 0 \\ 1 & 1 & 0 \end{bmatrix} \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \end{matrix} \text{ j}$$

$$\hat{\Omega}(\chi) = \begin{bmatrix} 0 & 1 & 1 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 1 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 1 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 1 & 0 \end{bmatrix}$$

one out of many joint events

t1-m2 t2-m1 | t1-m3 t2-m1 | t1-m3 t2-m2 | t1-m4 t2-m1 | t1-m4 t2-m2

feasible events

$$p[\chi|Z_k] = \frac{1}{c} \prod_{j:\tau_j=1} \mathcal{N}[z_j(k); \hat{z}^{t_j}(k|k-1), S^{t_j}(k)] \prod_{t:\delta_t=1} P_D^t \prod_{t:\delta_t=0} (1 - P_D^t)$$

$$\beta_j^t = \sum_{\chi} p[\chi|Z_k] \hat{\omega}_{jt}(\chi)$$