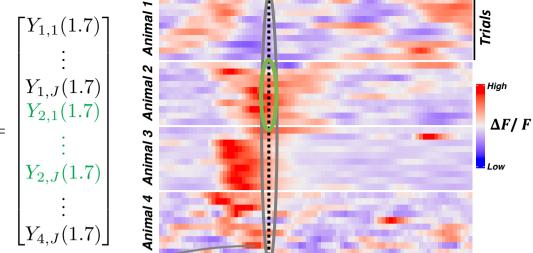
## **Example: DA-Latency Association**

Example time-point: 1.7 sec

$$\mathbf{Y}(1.7) = egin{bmatrix} \mathbf{Y}_1(1.7) \\ \mathbf{Y}_2(1.7) \\ \mathbf{Y}_3(1.7) \\ \mathbf{Y}_4(1.7) \end{bmatrix} = egin{bmatrix} \mathbf{Y}_1(1.7) \\ \mathbf{Y}_2(1.7) \\ \mathbf{Y}_3(1.7) \\ \mathbf{Y}_4(1.7) \end{bmatrix}$$



Y(1.7)

Model includes fixed- and random-effects for *Latency* ( $X_{i,j} = Z_{i,j} = \text{Lat}_{i,j}$ ):

$$Y_{i,j}(s) = \beta_0(s) + \gamma_{i,0}(s) + \operatorname{Lat}_{i,j} \left[ \frac{\beta_1(s)}{s} + \gamma_{i,1}(s) \right] + \varepsilon_{i,j}(s)$$

