$egin{aligned} \left[oldsymbol{lpha}, \sigma \mid \mathbf{y}
ight] & \propto \prod \prod \left[y_{i,j} \mid gig(oldsymbol{lpha}, \mathbf{x}ig), \sigma^2
ight] \left[lpha_j
ight] \left[\sigma
ight] \end{aligned}$

i=1, j=1

 $g(\boldsymbol{\alpha}, \mathbf{x}) = \alpha_j x_{i,j}$