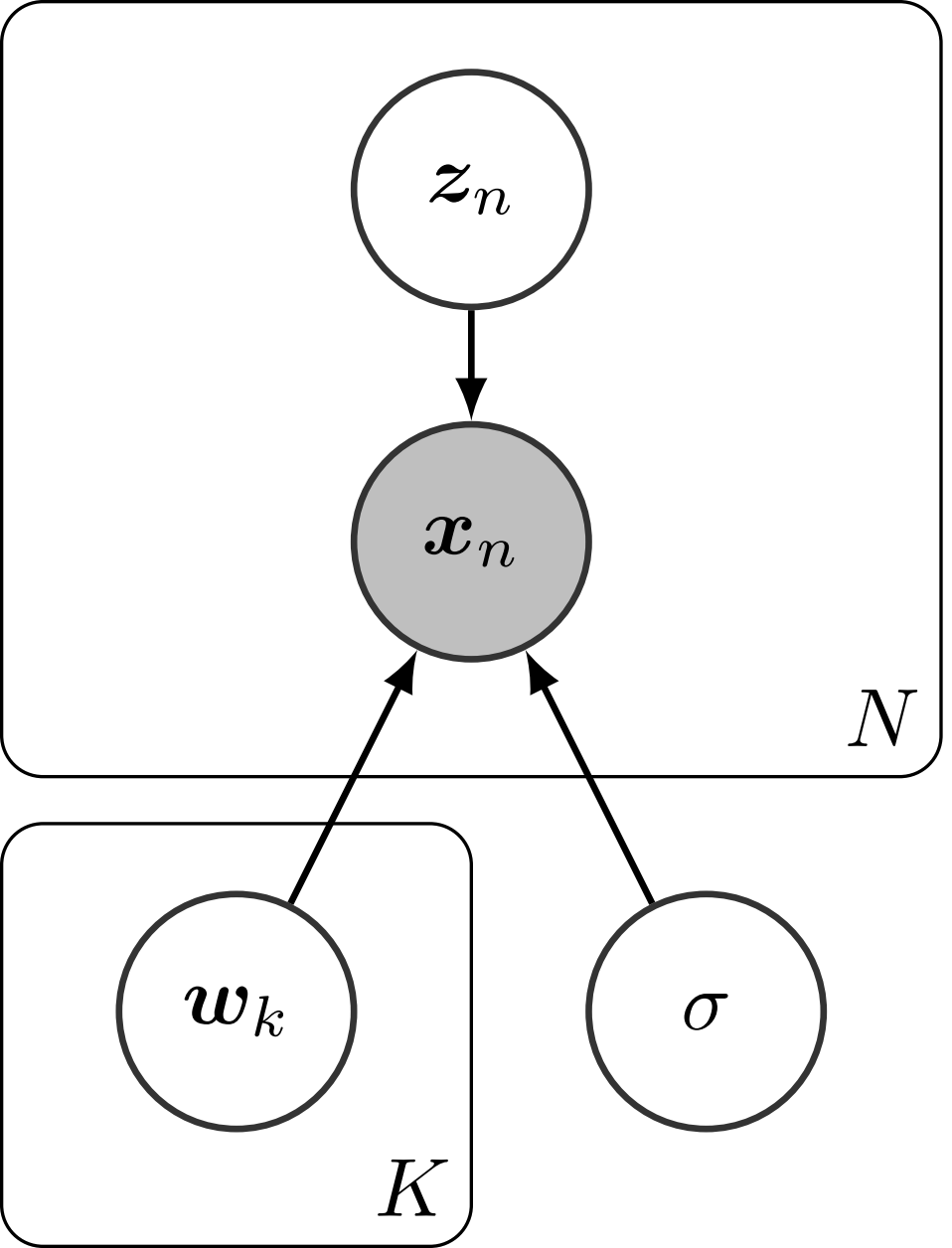

$$z_n \sim \mathcal{N}_K(0, I)$$

$$x_n \sim \mathcal{N}_d(z_n w, \sigma)$$

$$w_k \sim \mathcal{N}_d(0, I)$$