

**$\epsilon$ -greedy proposal** for action selection in Deep Q-Networks (DQN):

$$z_i = \mathbf{Q}(s, a_i) + \frac{1}{\sqrt{n}}$$

$$\text{softmax}(z_i) = \frac{\exp(z_i)}{\sum_{j=1}^K \exp(z_j)}, \quad i = 1, \dots, K. \quad (1)$$