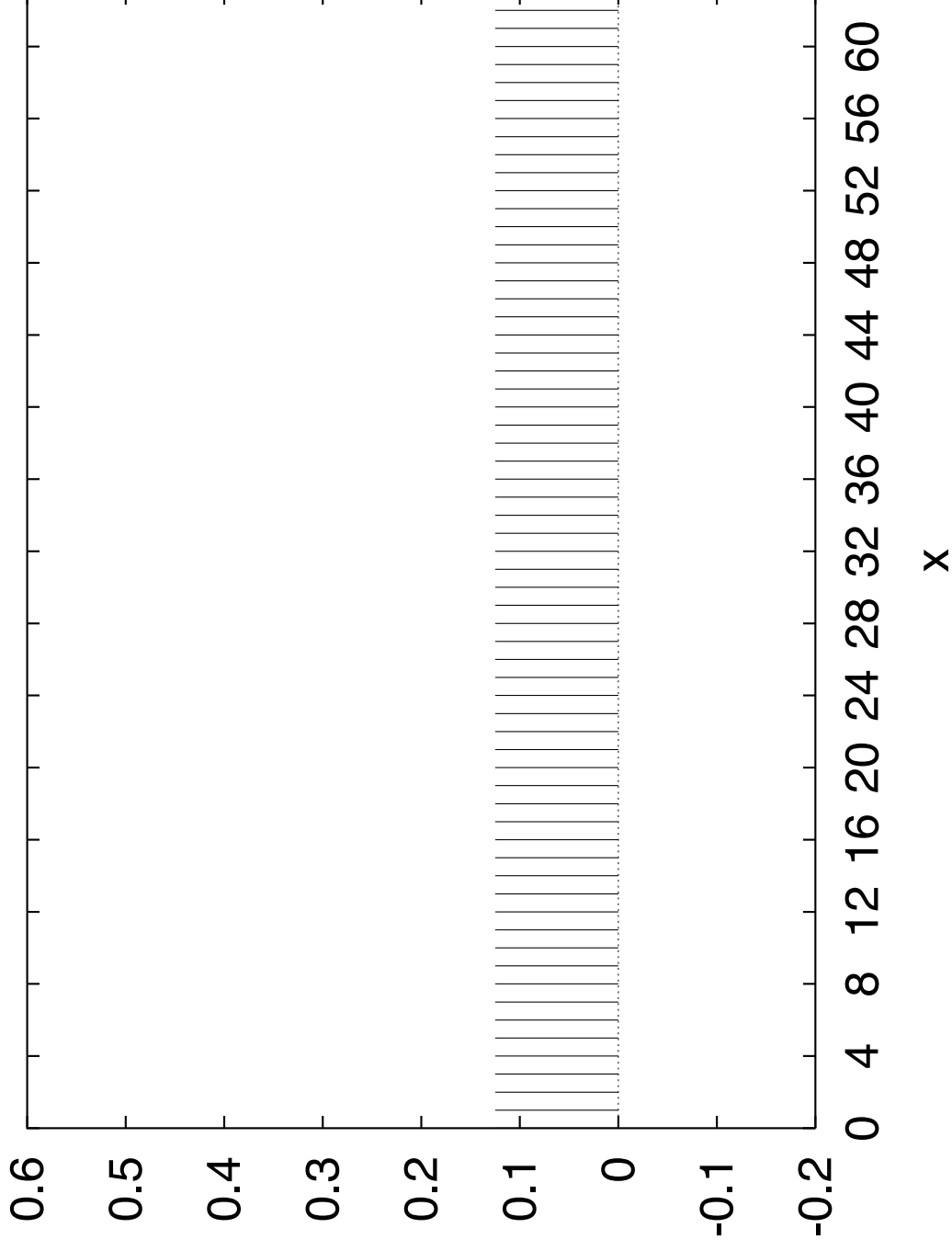


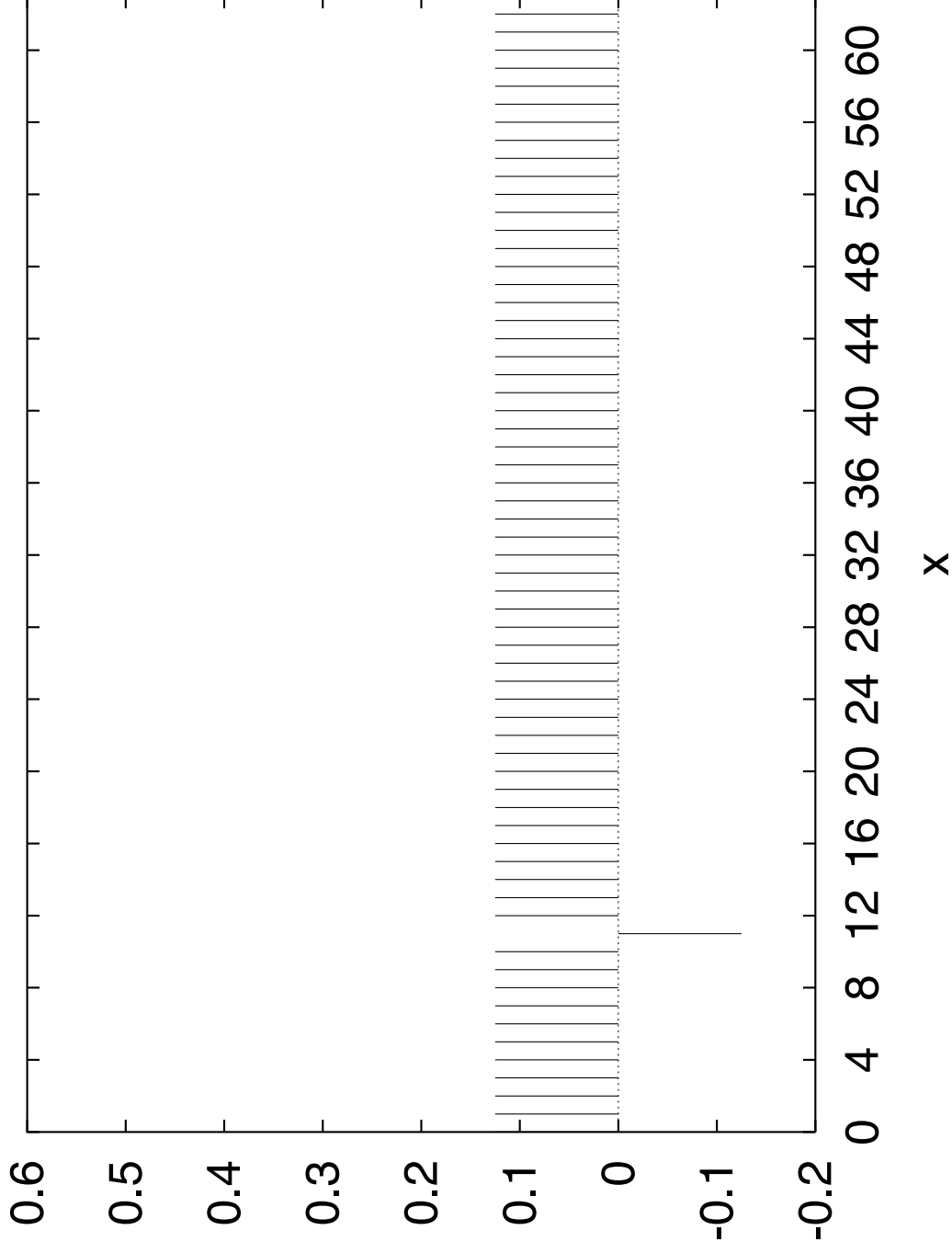
Grover Algorithmus: 1. Iteration

initial state



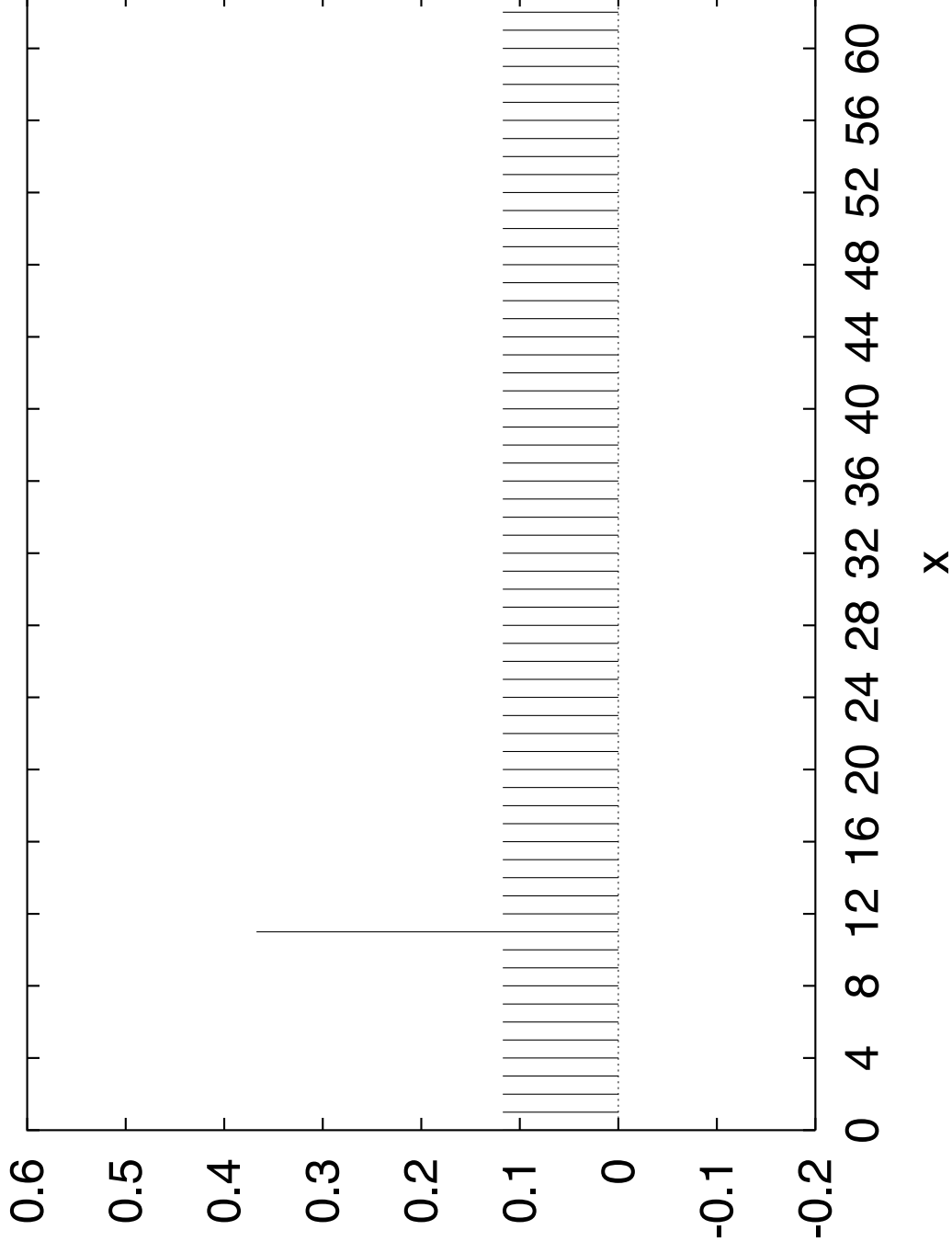
Grover Algorithmus: 1. Iteration

step (i): U_p



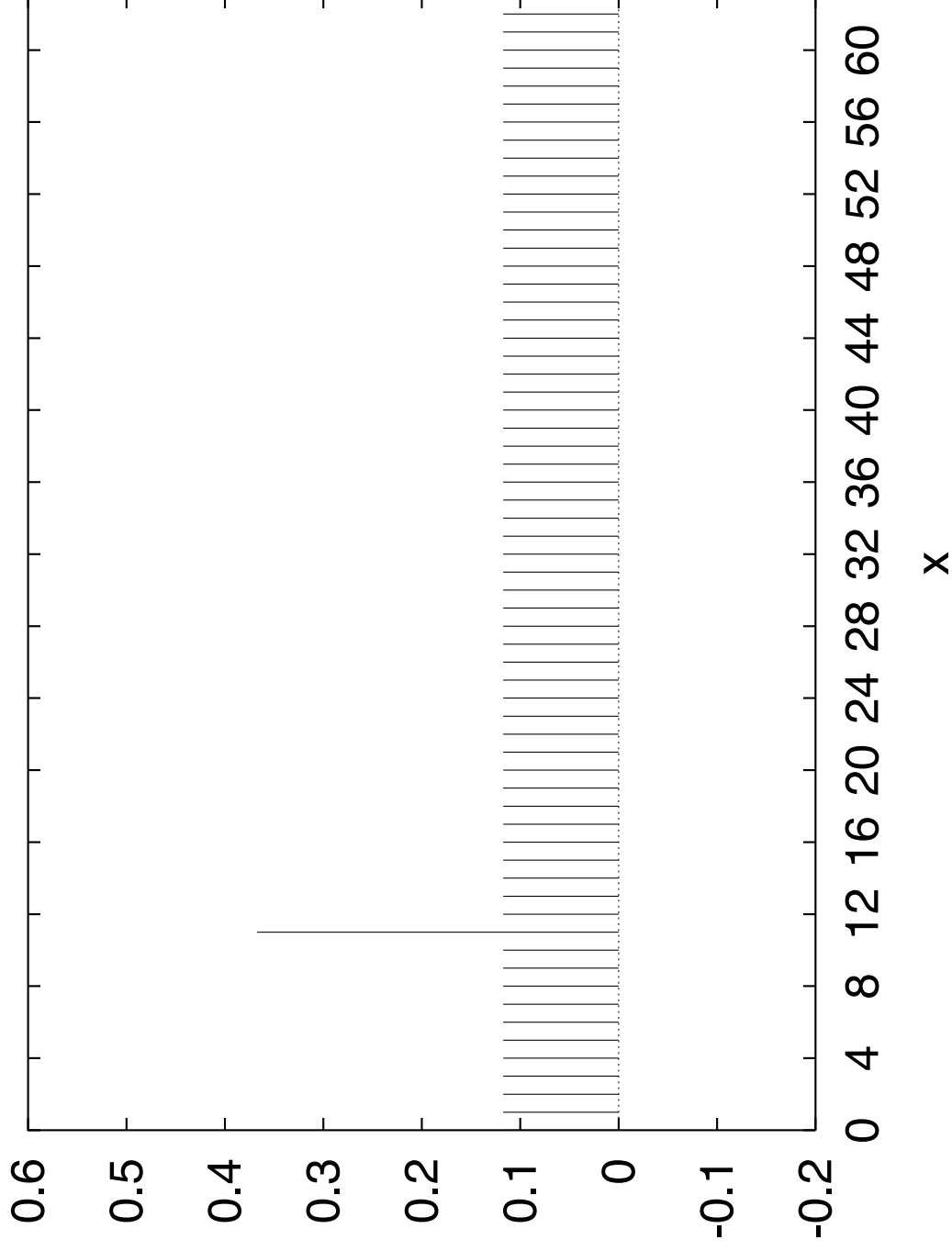
Grover Algorithmus: 1. Iteration

step (ii): U



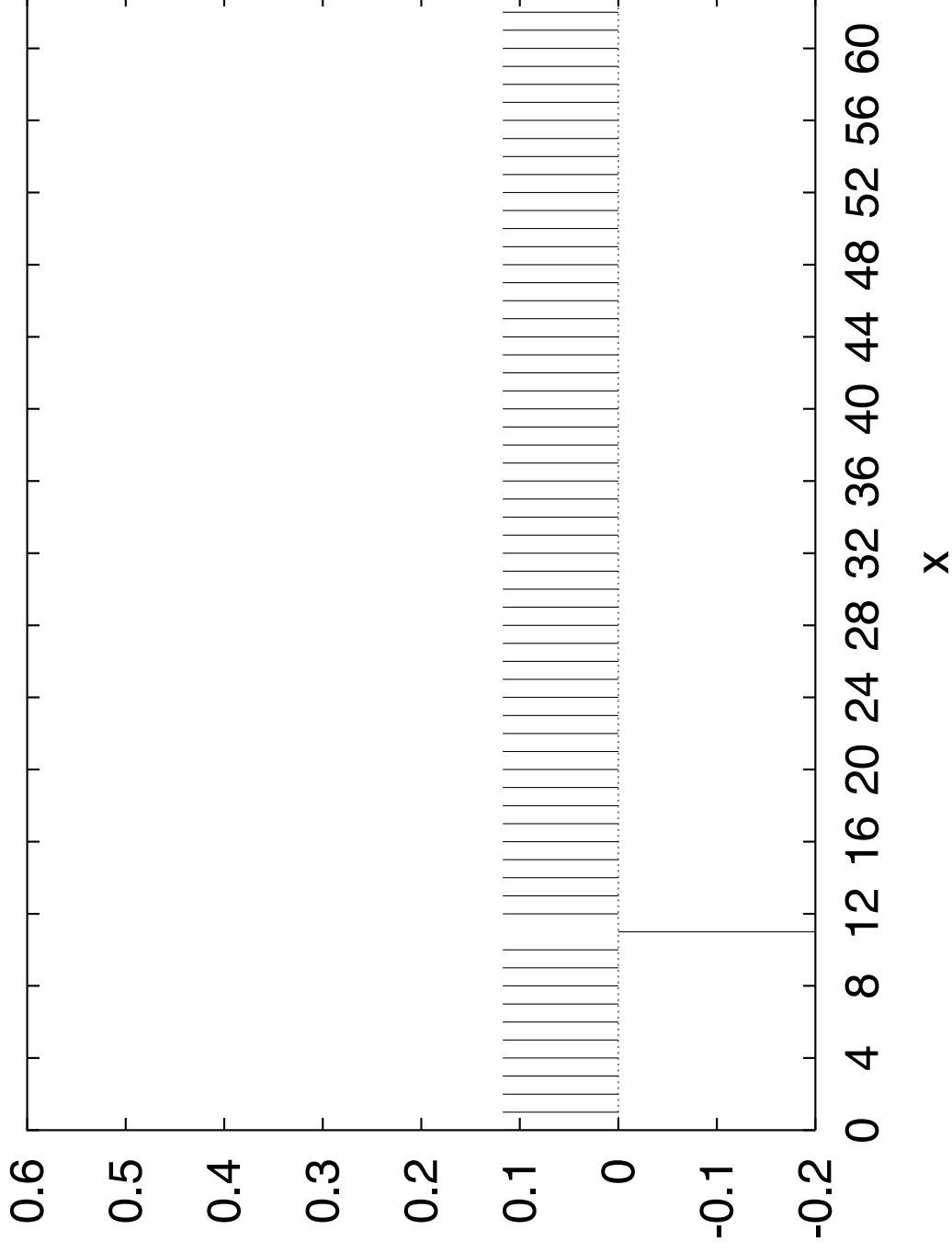
Grover Algorithmus: 2. Iteration

initial state



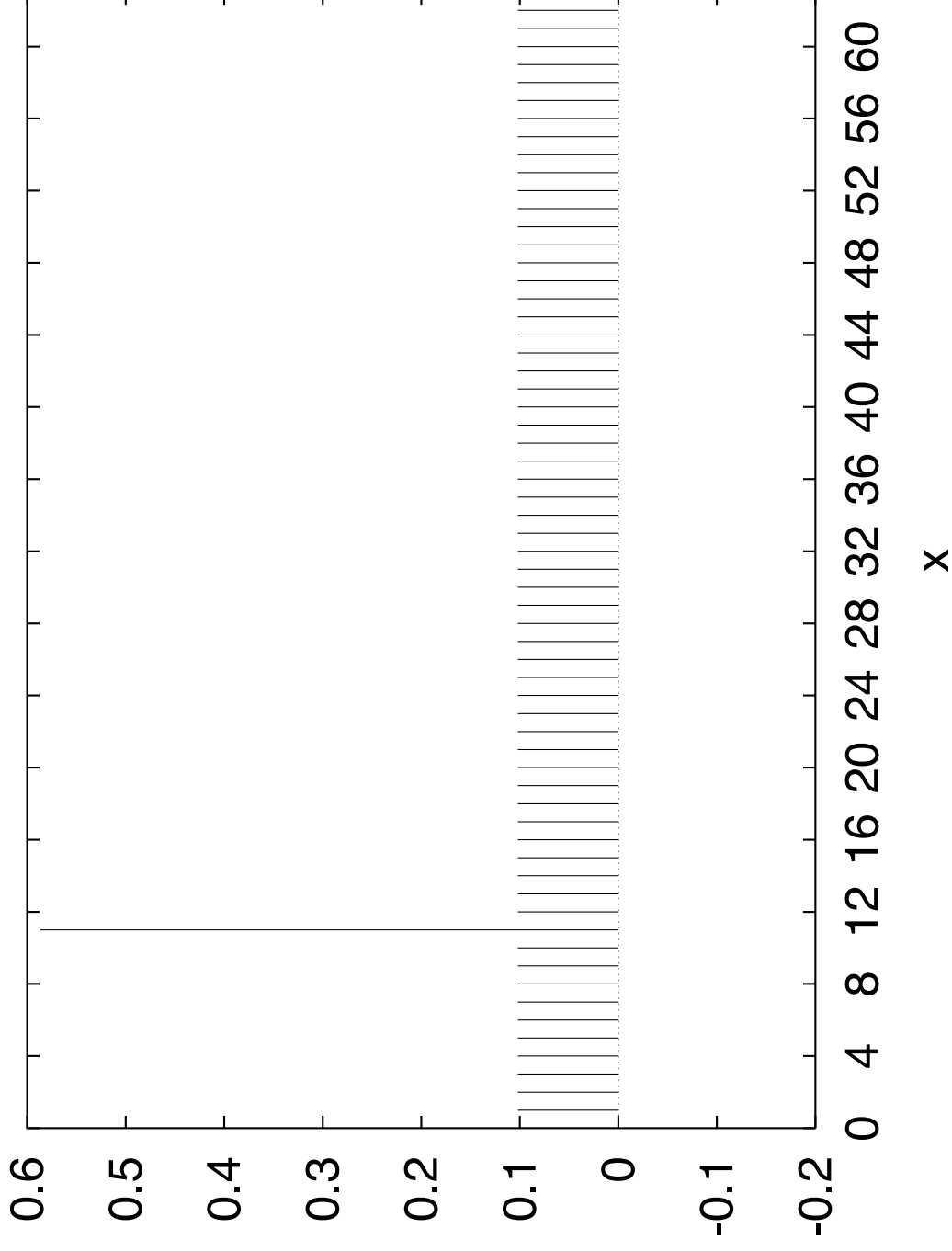
Grover Algorithmus: 2. Iteration

step (i): U_p

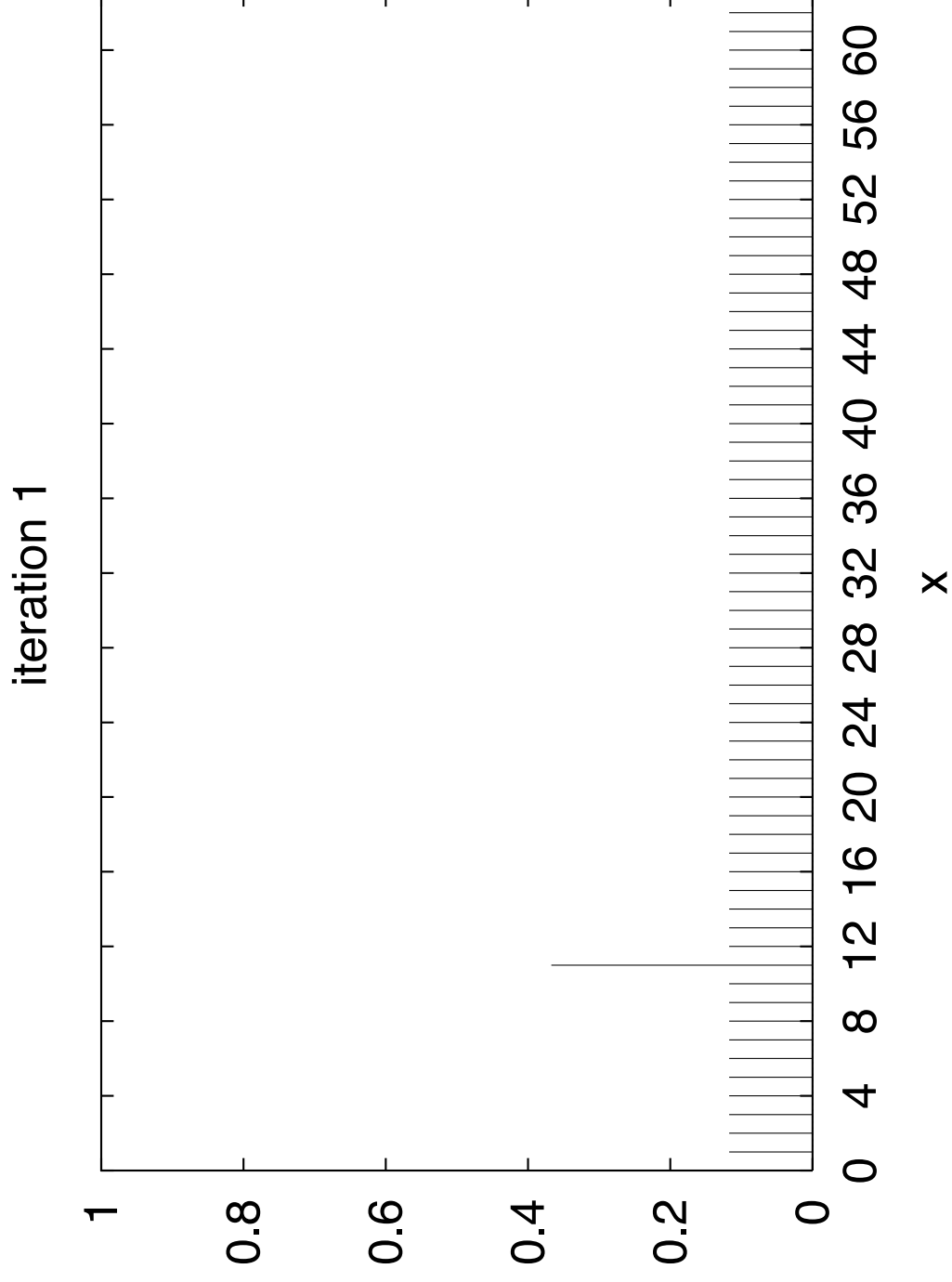


Grover Algorithmus: 2. Iteration

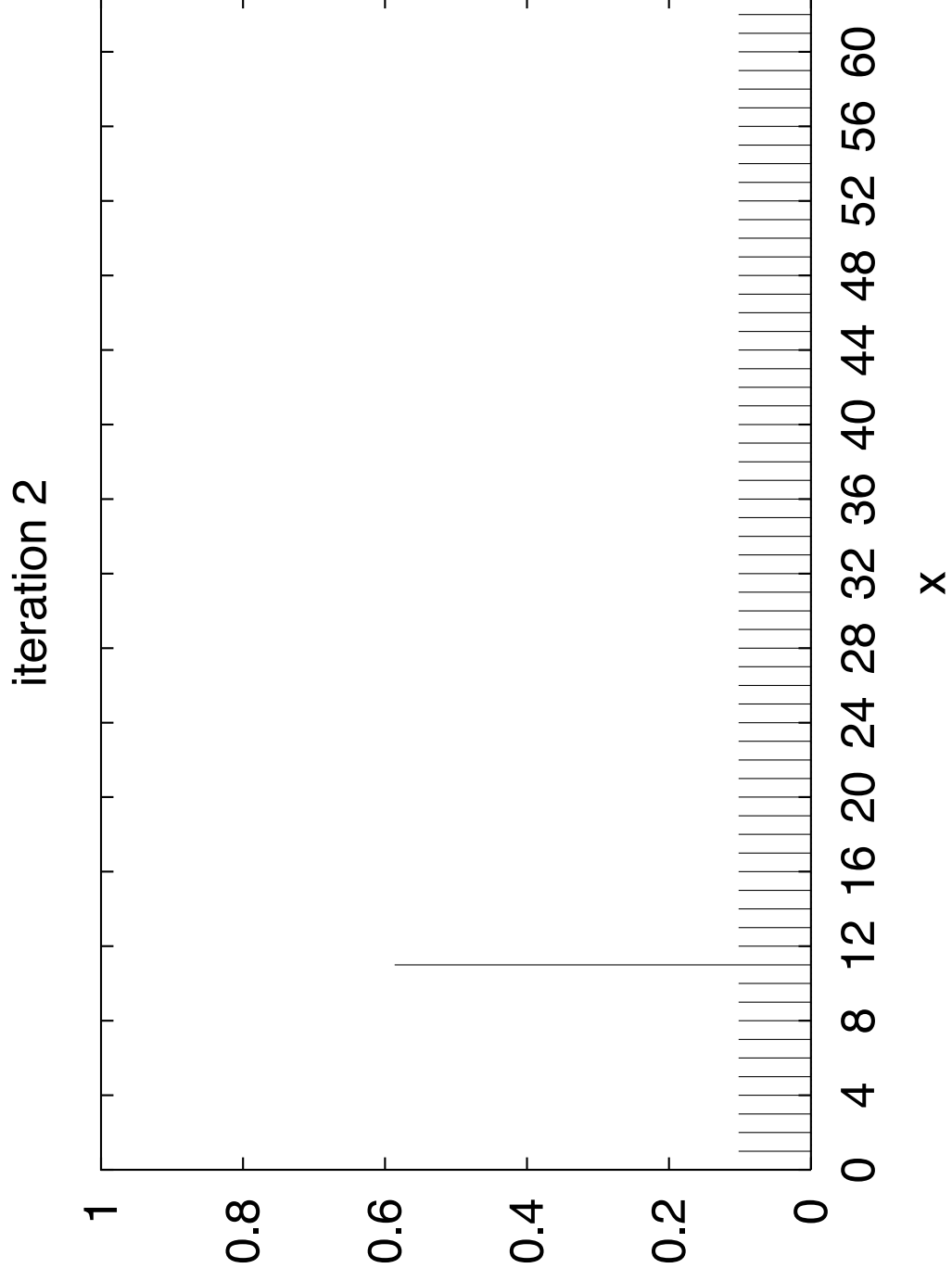
step (ii): U



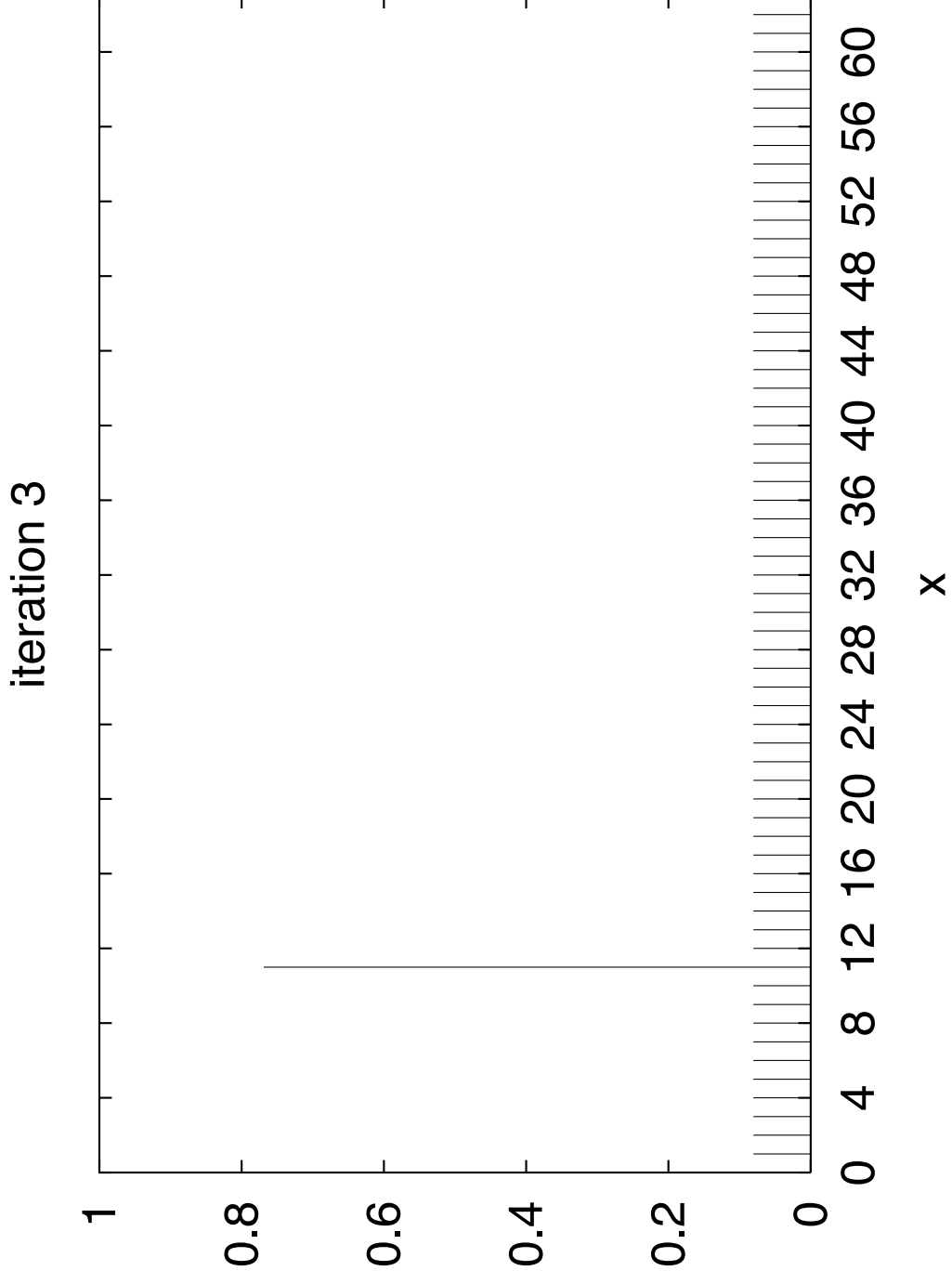
Grover Algorithmus: amplitude amplification



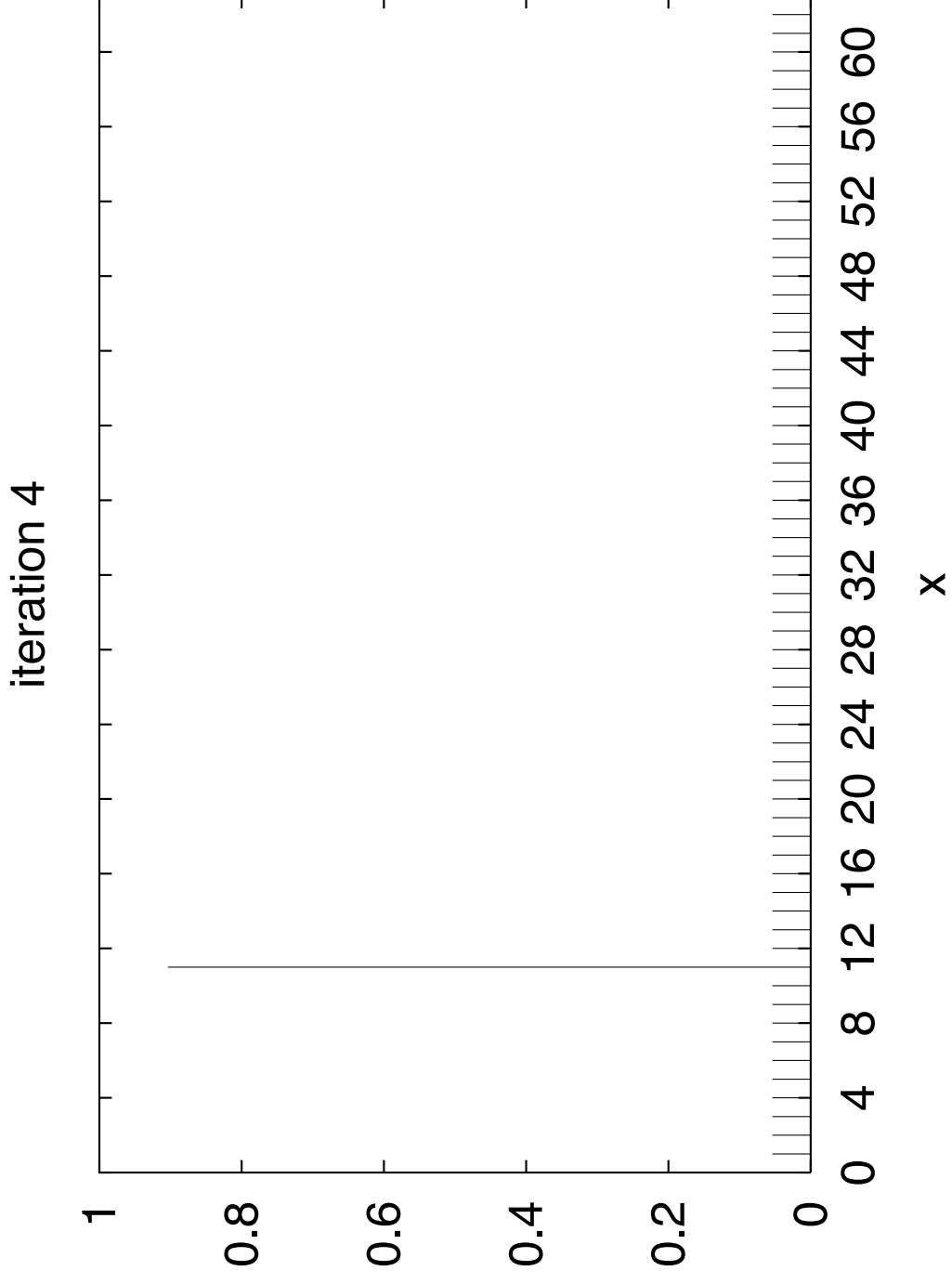
Grover Algorithmus: amplitude amplification



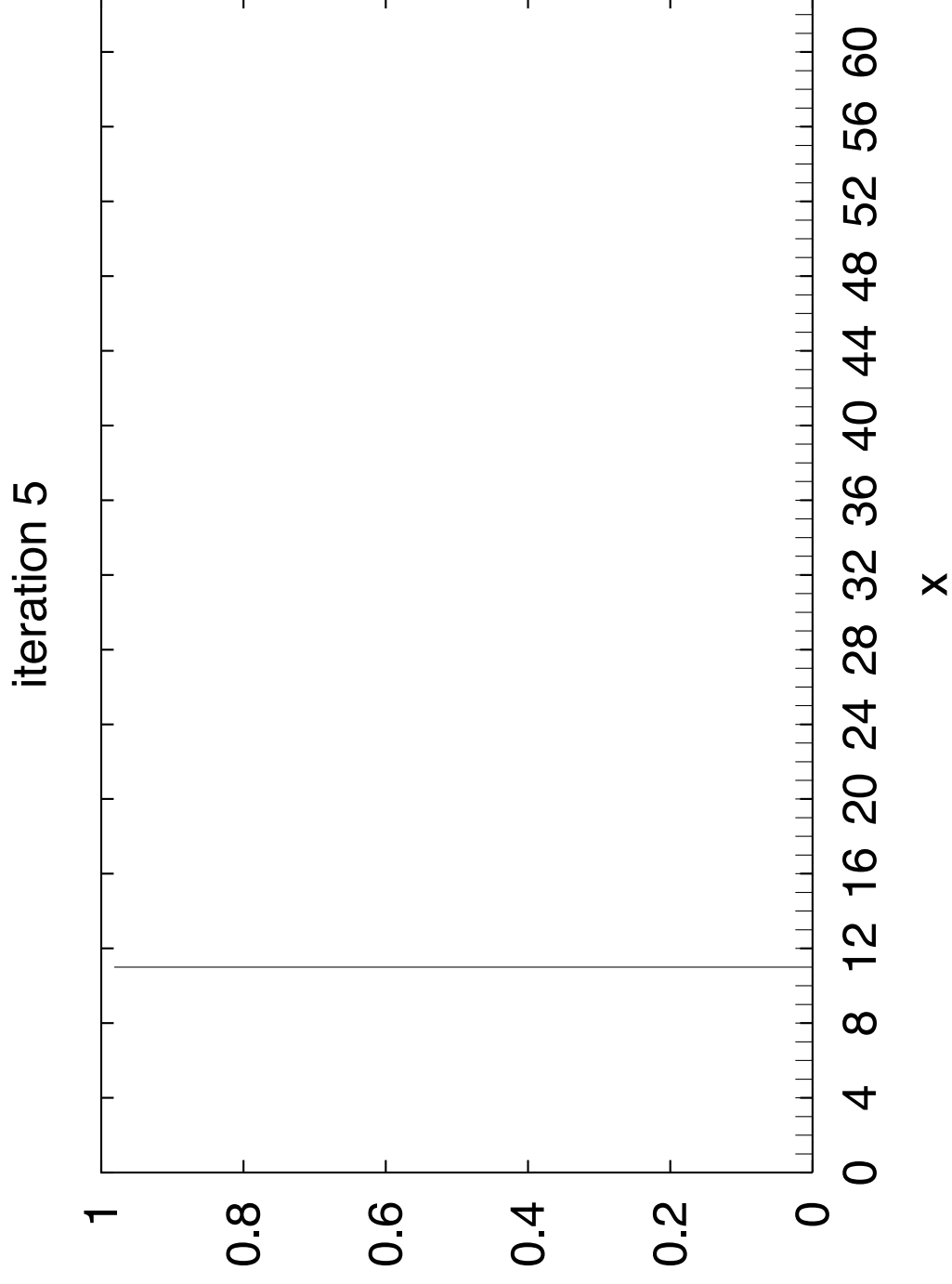
Grover Algorithmus: amplitude amplification



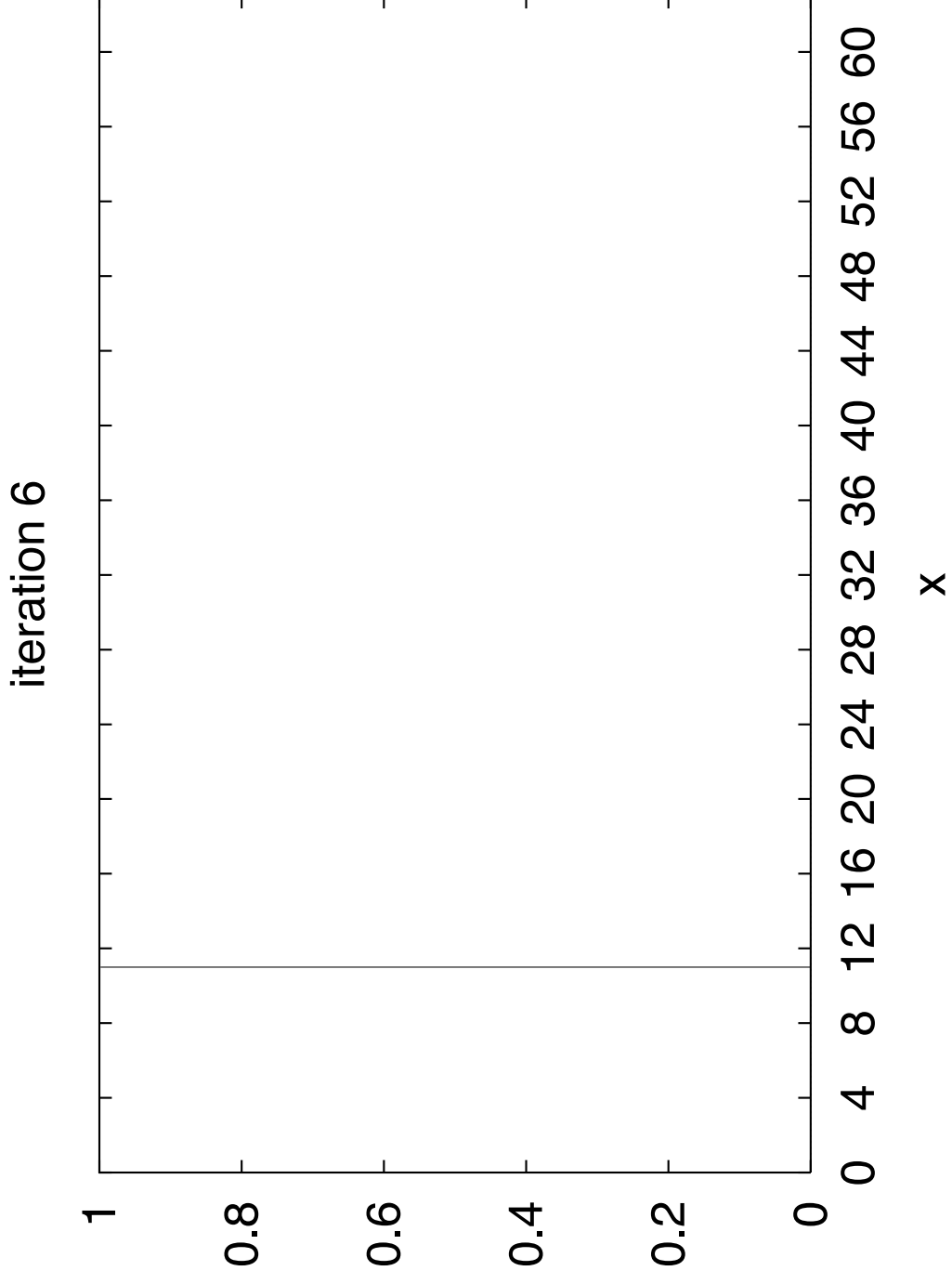
Grover Algorithmus: amplitude amplification



Grover Algorithmus: amplitude amplification



Grover Algorithmus: amplitude amplification



Grover Algorithmus: Amplitude

$$a_1 = \sin((2\mu + 1)\Theta_0) \text{ mit } \sin(\Theta_0) = \sqrt{1/n}$$

$$N = 64 : \mu_{\max} \approx 5.77$$

