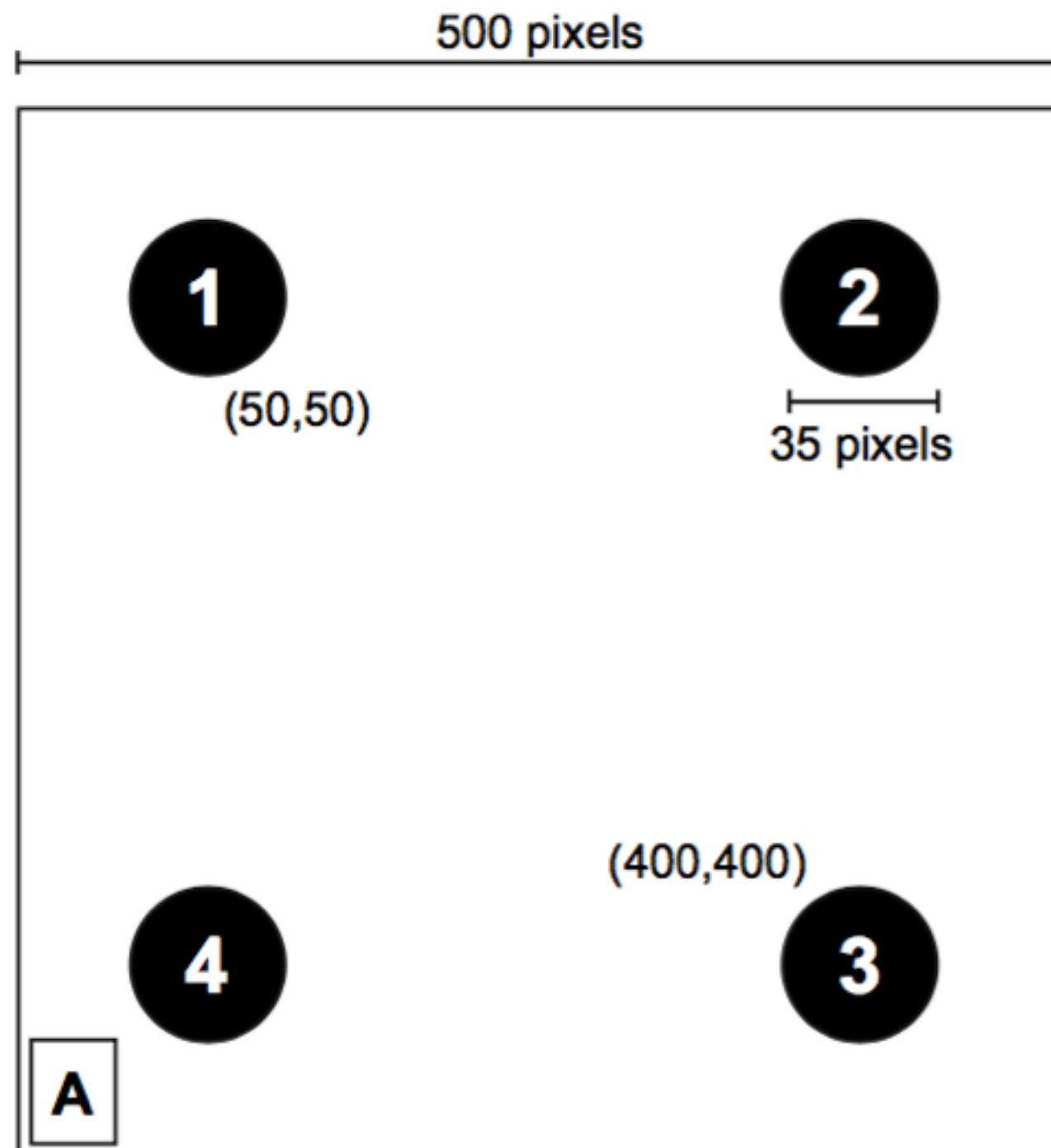
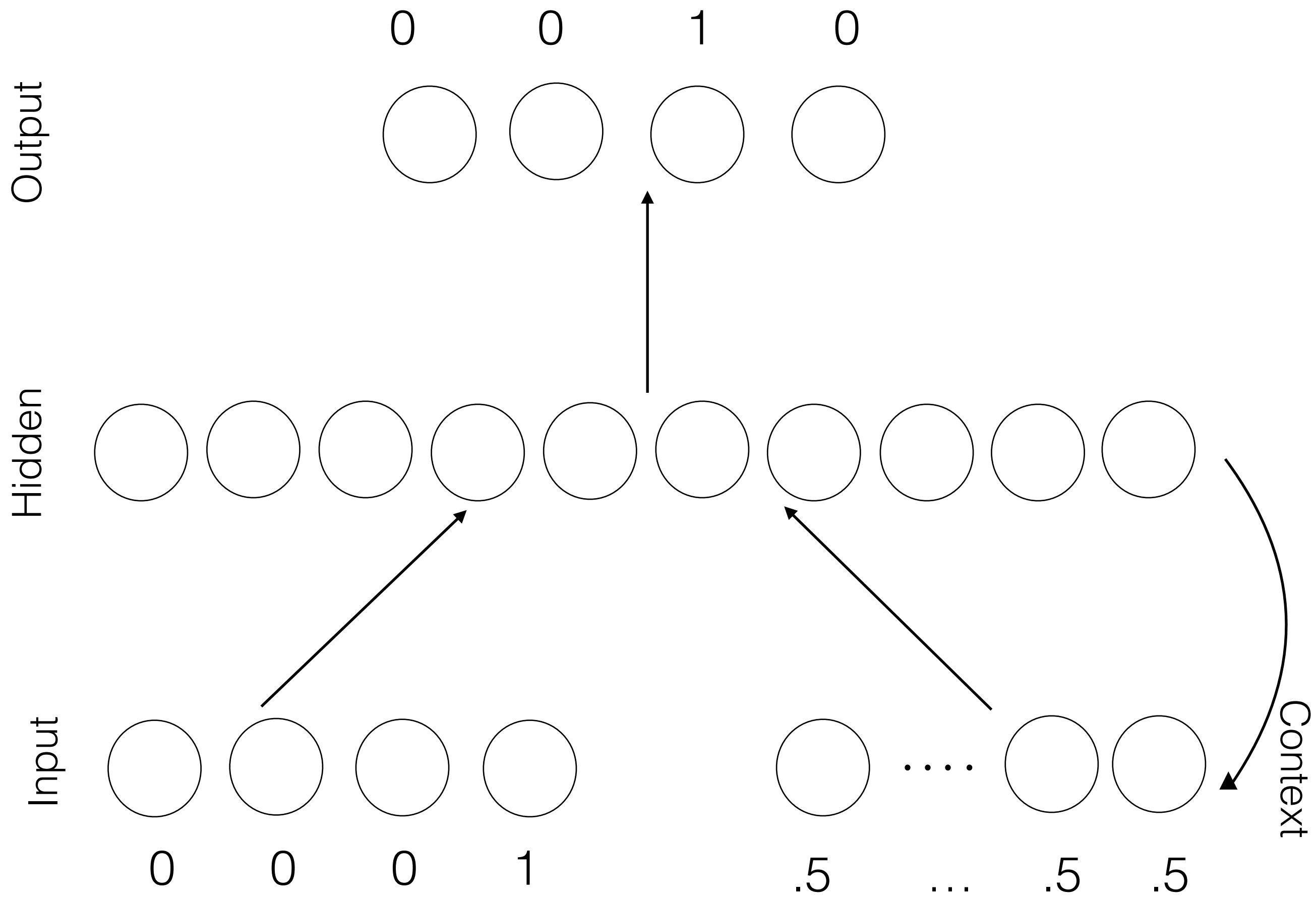


Simulating Sequence Learning by SRN Networks

Maryam Taba
Rick Dale

4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1 4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1



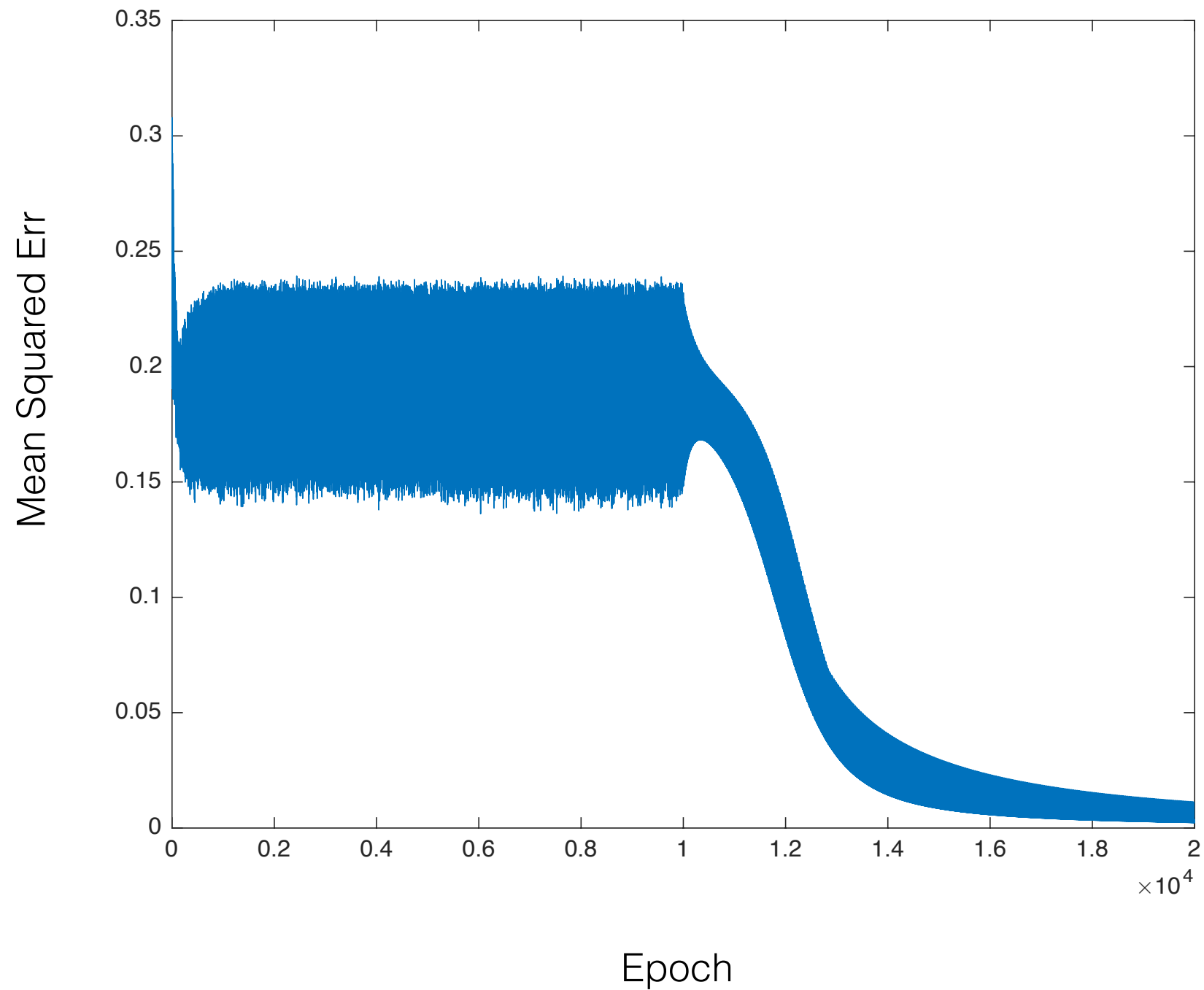


Network Parameters

- Input Units = 4
- Hidden Units = 10
- Output Units = 4
- Learning Rate = .05
- Momentum = .9
- Iterations = 10,000

$4-2-3-2-1-2-1-2-4-1-3-2-1-4-1-3-1-3-2-4-1-3-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1-4-3-2-1$

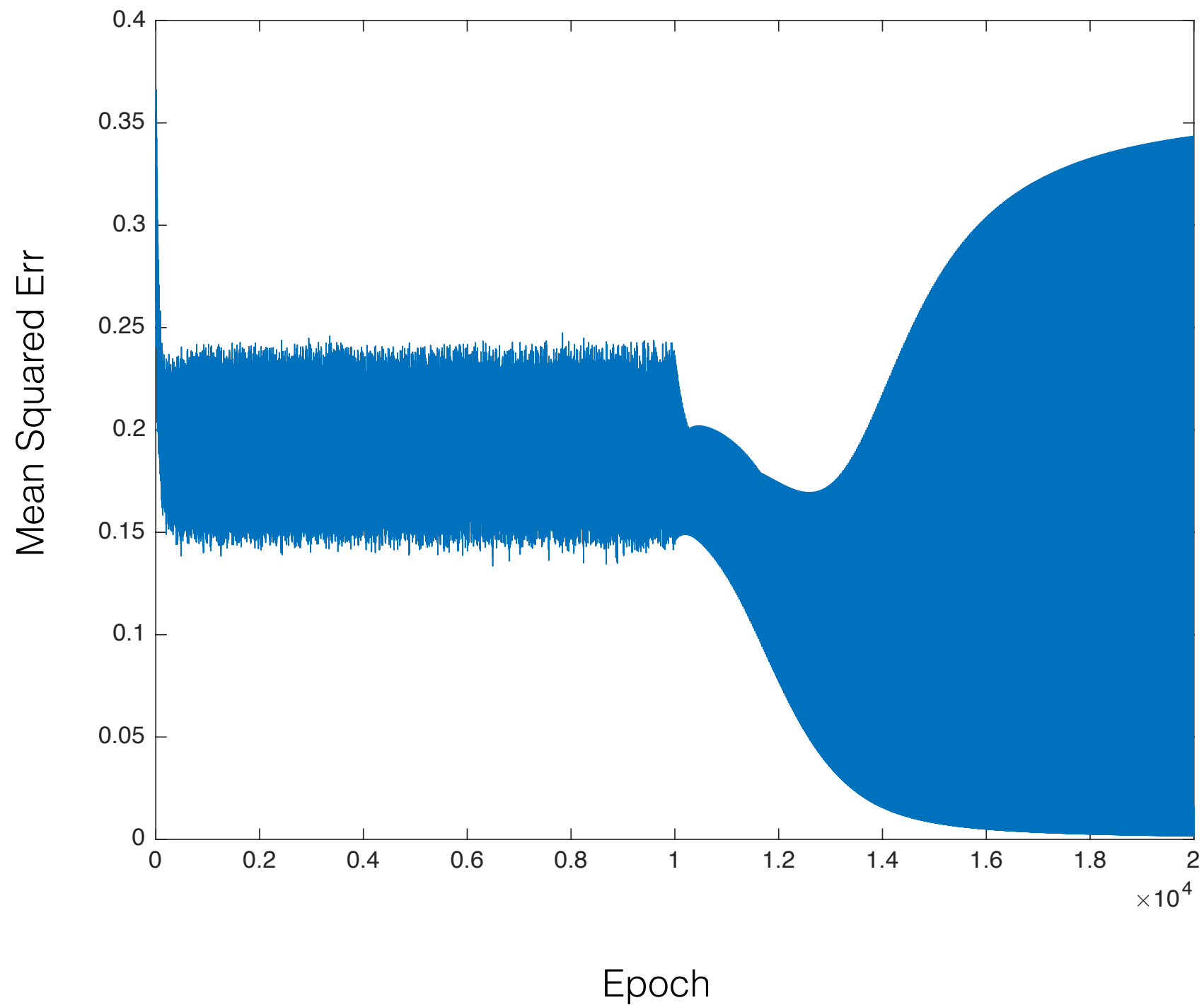
Mean Error for Condition Random+100% Regularity



Learning Rate = .05
Momentum = .6

4-2-3-2-1-2-1-2-4-1-3-2-1-4-1-3-1-3-2-4-1-3-1-4-1-2-3-4-1-4-1-2-3-4-1-2-3-4-1-2-3-4-1-2-3-4-1

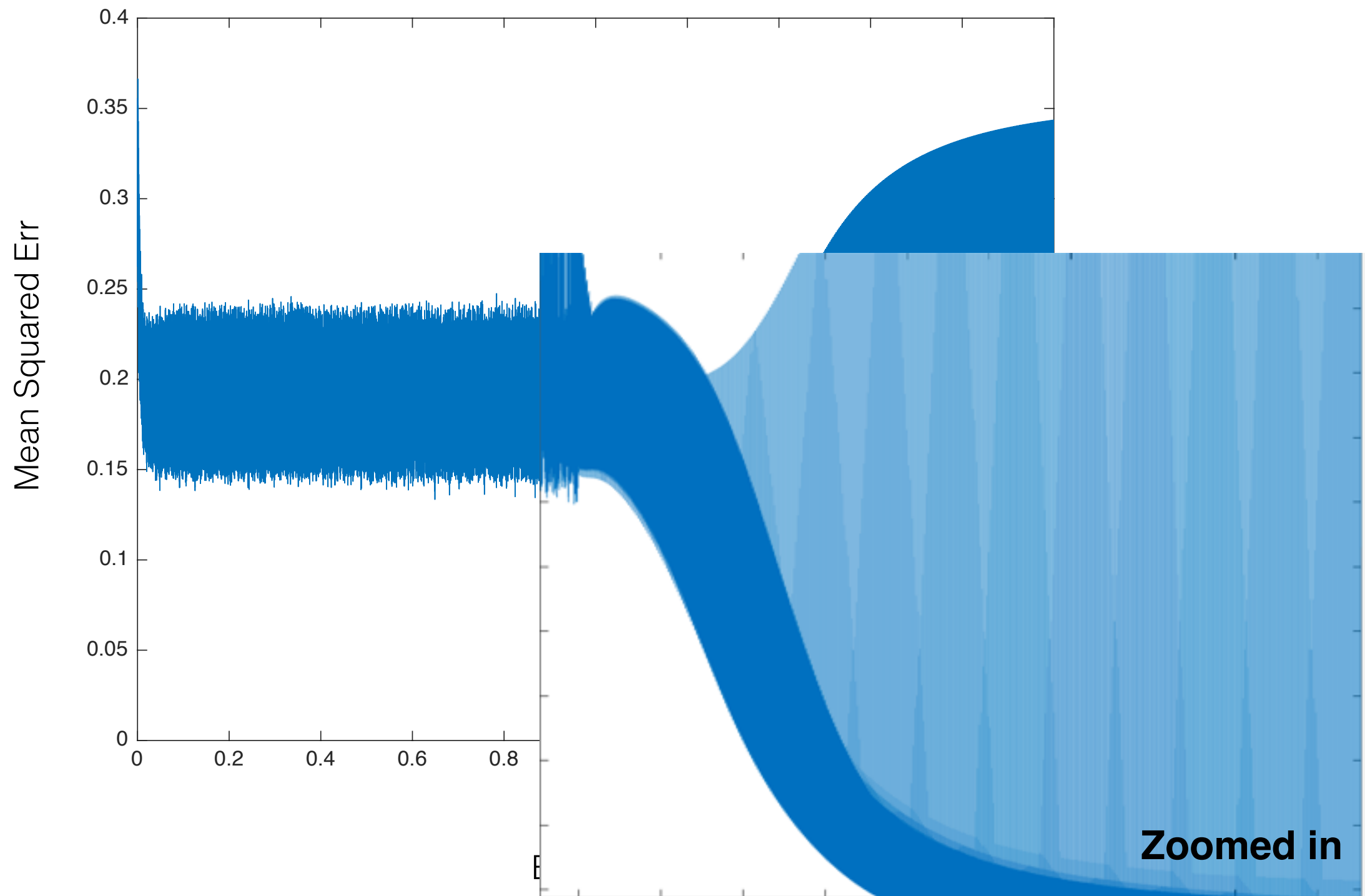
Mean Error for Condition Random+89% Regularity



Learning Rate = .05
Momentum = .9

4-2-3-2-1-2-1-2-4-1-3-2-1-4-1-3-1-3-2-4-1-3-1-4-1-2-3-4-1-4-1-2-3-4-1-2-3-4-1-2-3-4-1-2-3-4-1

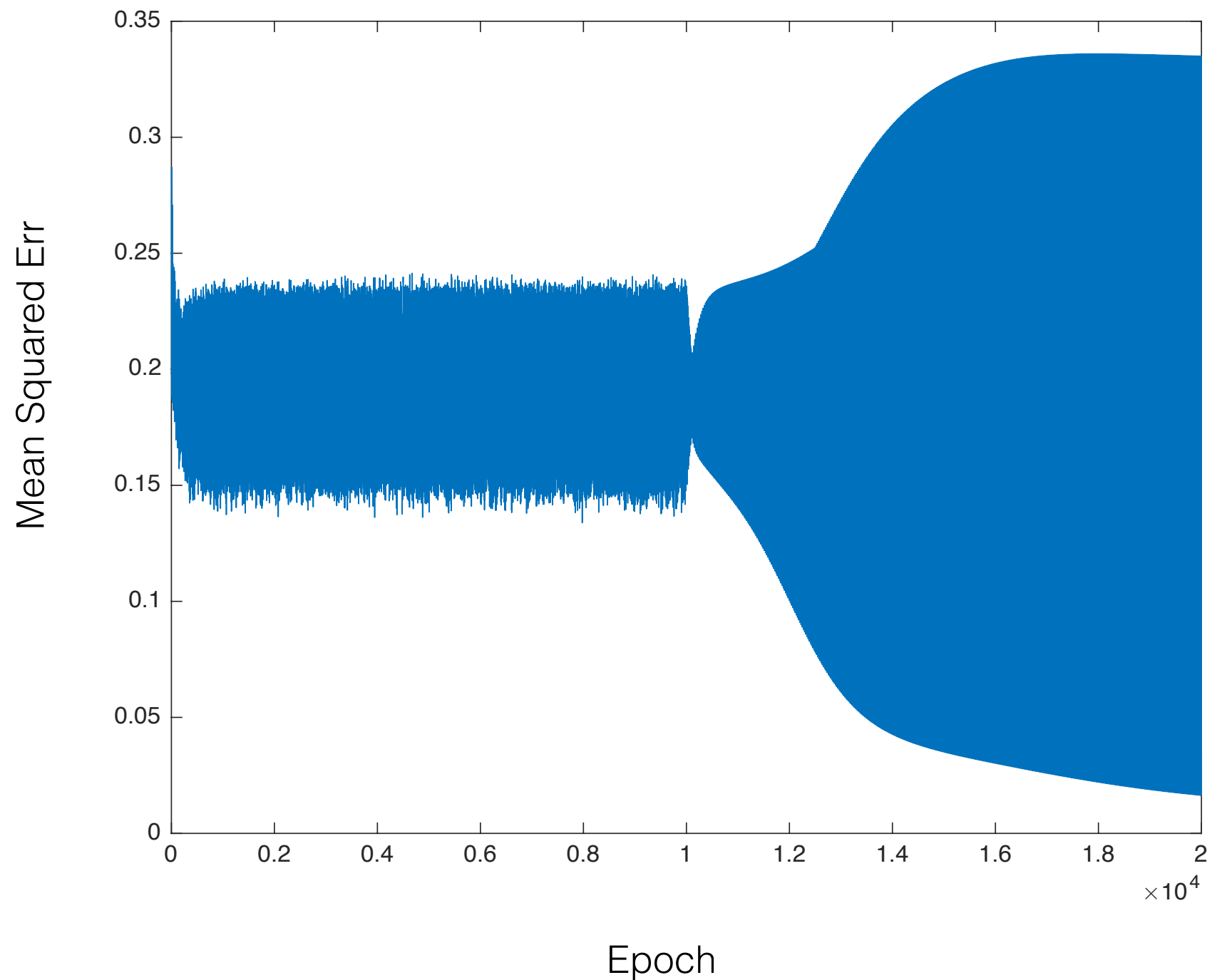
Mean Error for Condition Random+89% Regularity



Learning Rate = .05
Momentum = .9

4-2-3-2-1-2-1-2-4-1-3-2-1-4-1-3-1-3-2-4-1-3-1-3-4-2-3-4-2-1-3-1-3-4-1-2-1-2-4-2-4-2-1-3-4-2-4

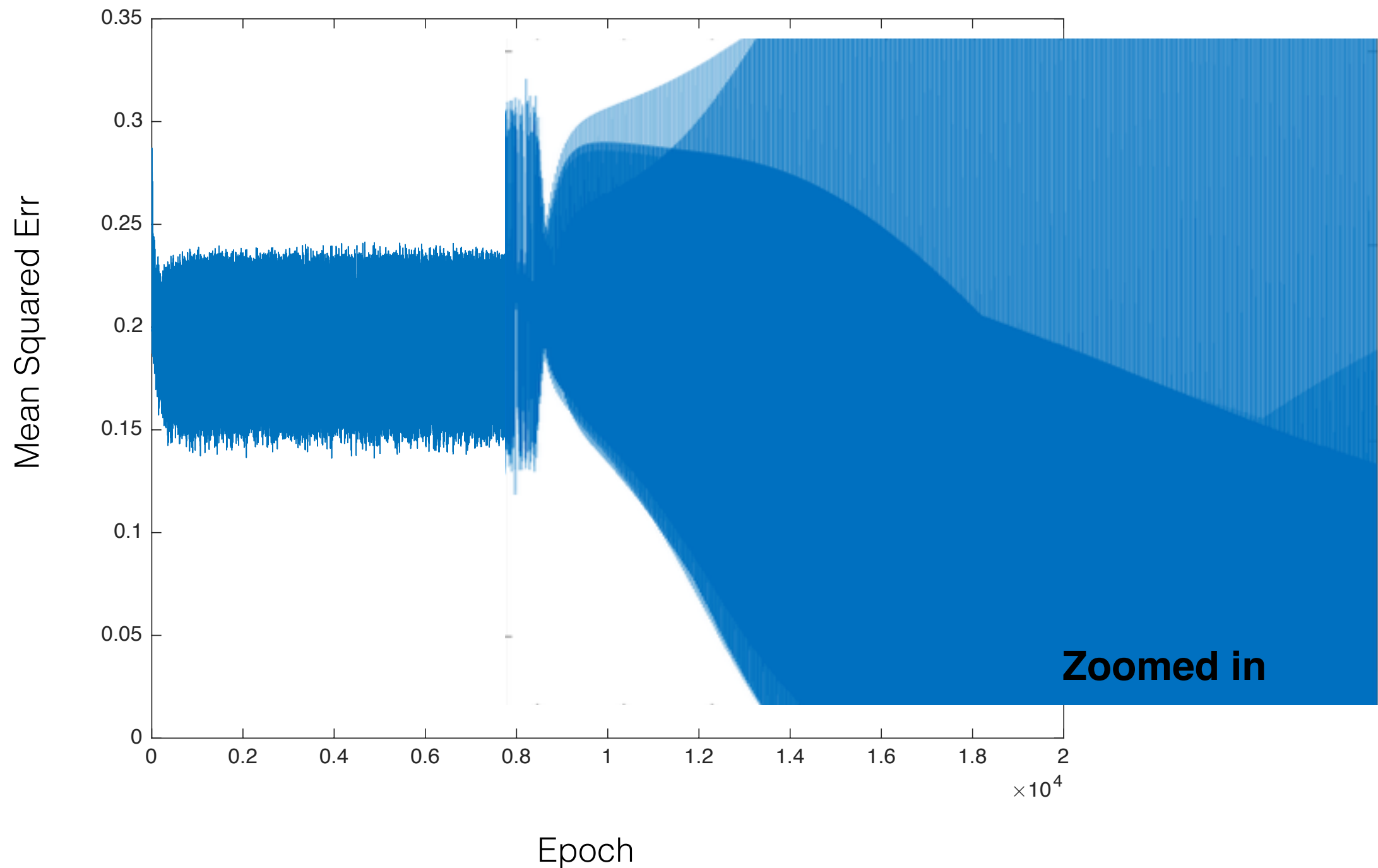
Mean Error for Condition Random+55% Regularity



Learning Rate = .05
Momentum = .6

4-2-3-2-1-2-1-2-4-1-3-2-1-4-1-3-1-3-2-4-1-3-1-3-4-2-3-4-2-1-3-1-3-4-1-2-1-2-4-2-4-2-1-3-4-2-4

Mean Error for Condition Random+55% Regularity



Learning Rate = .05
Momentum = .6