

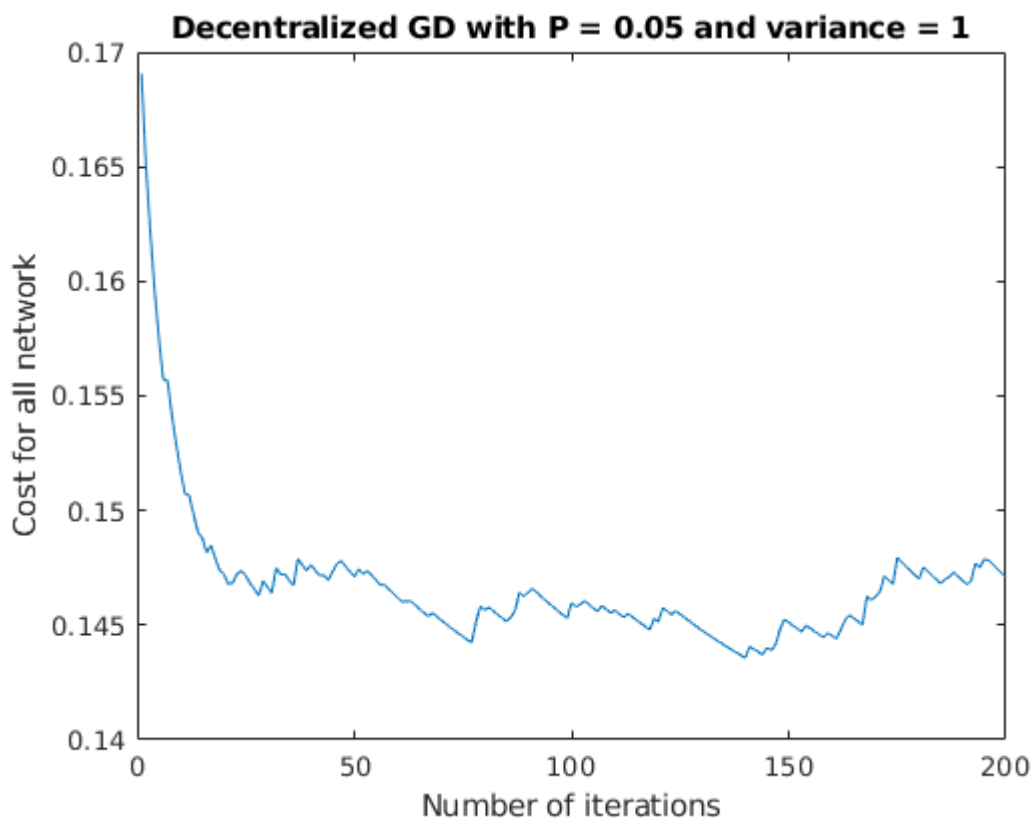
EP3260 MACHine Learning over Networks

Review of CA4 for Group 6. Review performed by Group 3

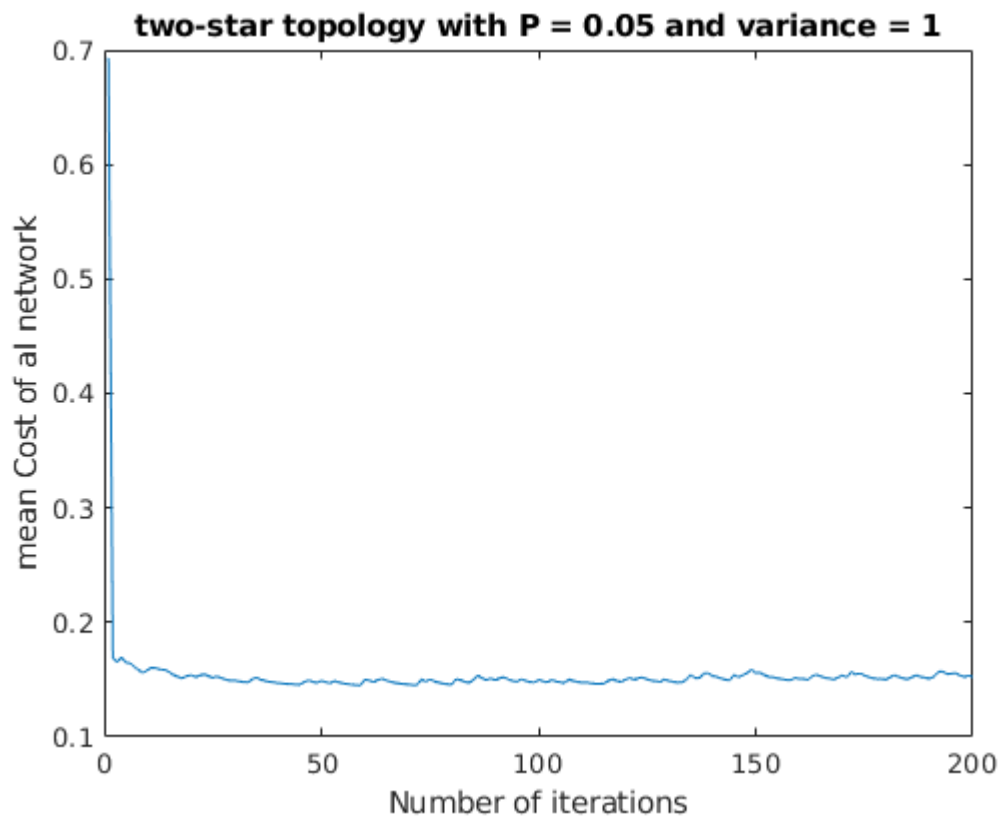
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The Group has submitted CA4. They have well documented code which can be reviewed and understood but with some effort. Although a report answering the asked questions is missing. But I ran there code to get the figures which are as follows:

A) Distributed-GD



B) 2-Star topology, Distributed GD



Overall, the group has put a reasonable time in doing this assignment, I hope they could write a small report so that future reviewers do not need to run the whole code to see what is going on! If they group has time, they could answer following questions.

- In the file cost.m they use $f = \text{mean}(\log(1 + \exp(-y \cdot (X' * w))) + \lambda * ||w||^2)$;
 - If I understand this properly, they are using which λ to penalize growth of w . Could they clarify this loss function?
- In the above figures, on the y -axis they have **Cost for all network?**, It seems this could mean cost of communication or the total loss function? It would help, if the group could clarify the same.
- In figure 2, the loss function has a steep fall in the first 2-3 iterations. And does not improve further. Is there a specific reason for this? I tried to go through the code to understand this, but it seems this is not possible to find out after spending reasonable time.