1) **Simulation settings for figure 2 :** plot MSE vs m

(i) $n = 512, m \in [90,150], N_{nc} = 15$ and $\sigma =$ 2% with 3 k values : $k \in \{1000,2500,5000\}$

(ii) $n = 512, m \in [90,150], N_{nc} = 25$ and $\sigma =$ 2% with 3 k values : $k \in \{1000,2500,5000\}$

(iii) Discard the case $\sigma =$ 0.2% for now.

(iv) Is it possible to run 10 experiments then take the average?

2) **Simulation settings for figure 3 :** plot MSE vs m

(i) $n = 1024, m \in [160,280], N_{nc} = 25$ and $\sigma =$ 2% with 3 k values : $k \in \{1000,2500,5000\}$

(ii) $n = 1024, m \in [160,280], N_{nc} = 50$ and $\sigma =$ 2% with 3 k values : $k \in \{1000,2500,5000\}$

(iii) Discard the case $\sigma =$ 0.2% for now.

(iv) Is it possible to run 10 experiments then take the average?

3) **What significant information is gained from table 1?!**

4) **Table 2** is enriched and improved as following

(i) Why are we looking for the settle down time ?! Instead follow the steps inbelow

(ii) Set $k = 5000$ and $n = 1024, N_{nc} = 25$ and $\sigma = 2\%$ and elect the value m such that MSE is minimized. what do you think of it?

(iii) Next, set the table

k	MSE	Time units	computing time
1000			
2500			
5000			

Column 'MSE': MSE values for the elected m value for different $k's$

Column 'Time units' : corresponding required time units;

Column 'computing time' : corresponding required computational time;

5) **I assume that we maintain figure 4 but with the previous elected m value.**

6) **Comparisons: the crux of these tests!**

(i) The new method is referred to as extended LPNN: ELPNN

(ii) I suggest 2 comparison methods: Our latter P_k —LPNN and the Lasso-LPNN from the core starting LPNN paper and the standard gradient projection method (Here for the standard approach, I'm inquiring what you think of using Matlab directly, that is, its unconstrained form!)

(iii) Rebuild figures 5 and 6.