

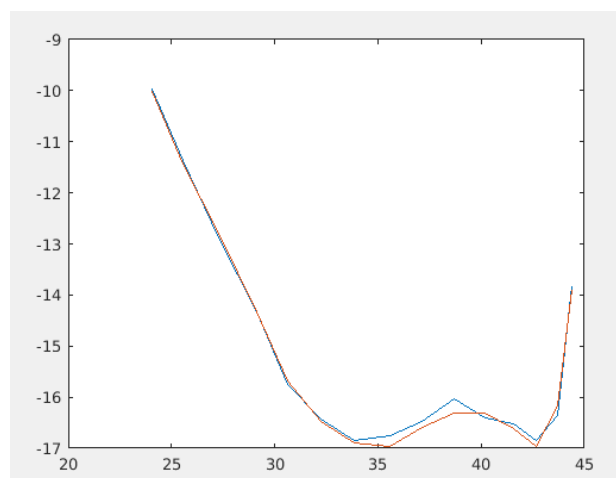
light_data_2.28/3.3/mix_amp/:

混合 snr 数据作为训练数据，且数据归一化。测试数据集不仅是 xTest,还有用来训练的 xTrain 也做一遍测试，看看有没有过拟合

1.1 mix_amp/Twononlinear1 (两层非线性层，更改 Hidden Units)

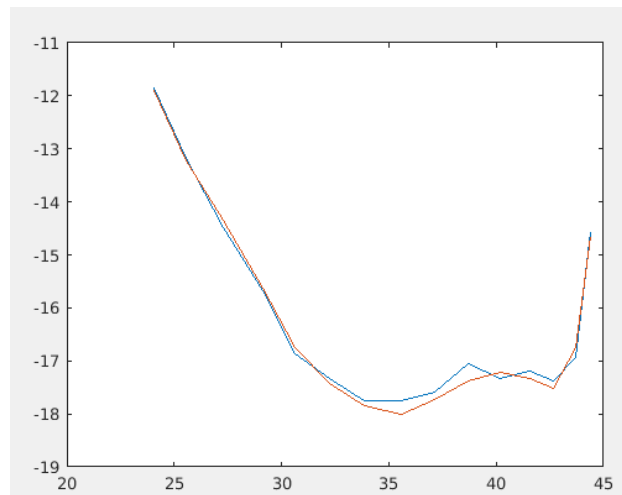
蓝线是测试集 NMSE，红线是用训练集 xTrain 测试出来的 NMSE

```
Twononlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 25
```



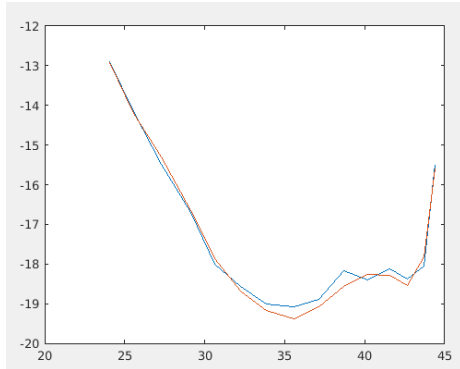
1.2 mix_amp/Twononlinear2

```
Twononlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 30
```



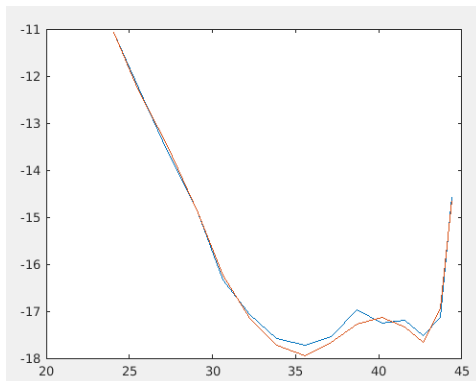
1.3 mix_amp/Twononlinear3

```
Twononlinear ,
ini_learningRate = 1.000000e-02 ,
min_batch_size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp_begin = 22 , amp_end = 50 , amp_step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 40
```



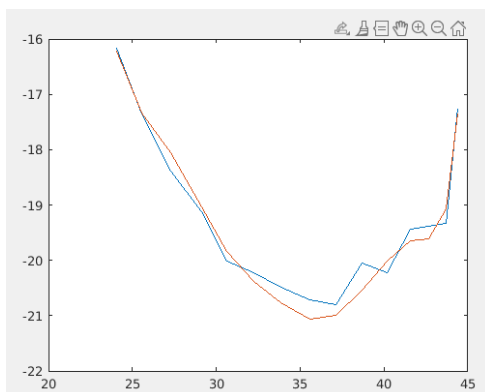
1.4 mix_amp/Twononlinear4

```
Twononlinear ,
ini_learningRate = 1.000000e-02 ,
min_batch_size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp_begin = 22 , amp_end = 50 , amp_step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 50
```



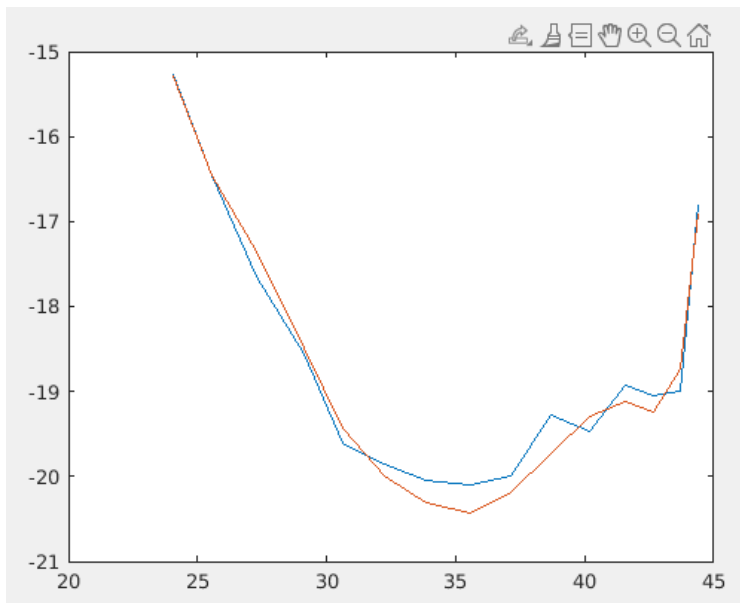
1.5 mix_amp/Twononlinear5

```
Twononlinear ,
ini_learningRate = 1.000000e-02 ,
min_batch_size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp_begin = 22 , amp_end = 50 , amp_step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 60
```



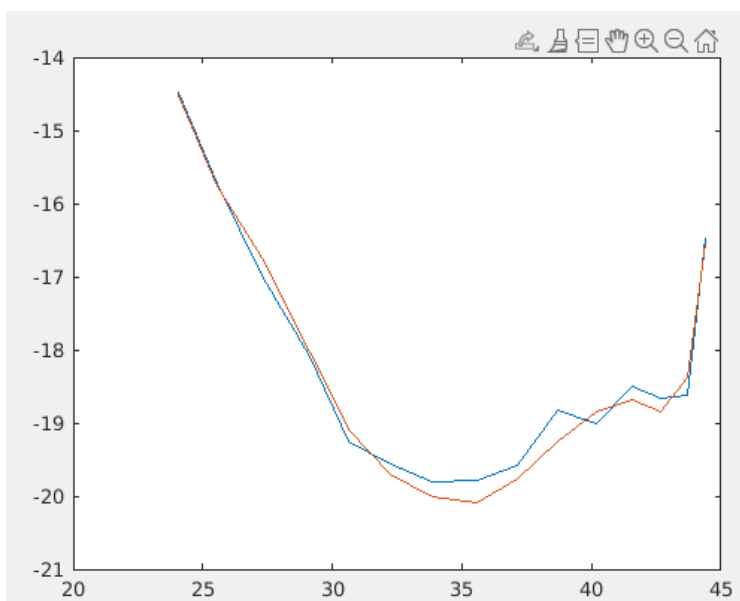
1.6 mix_amp/Twononlinear6

```
Twononlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 70
```



1.7 mix_amp/Twononlinear7

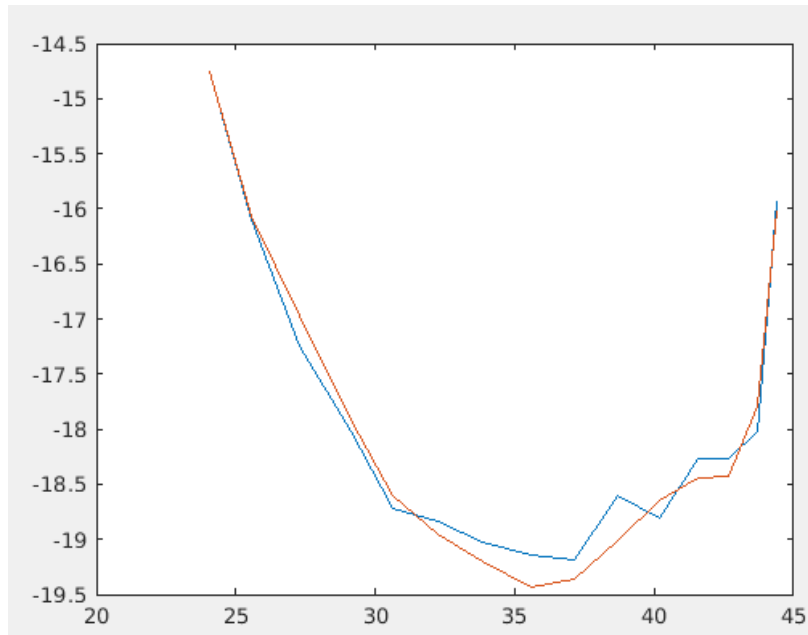
```
Twononlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 80
```



2.1 mix_amp/Threenonlinear1 (三层非线性层, 更改 Hidden Units)

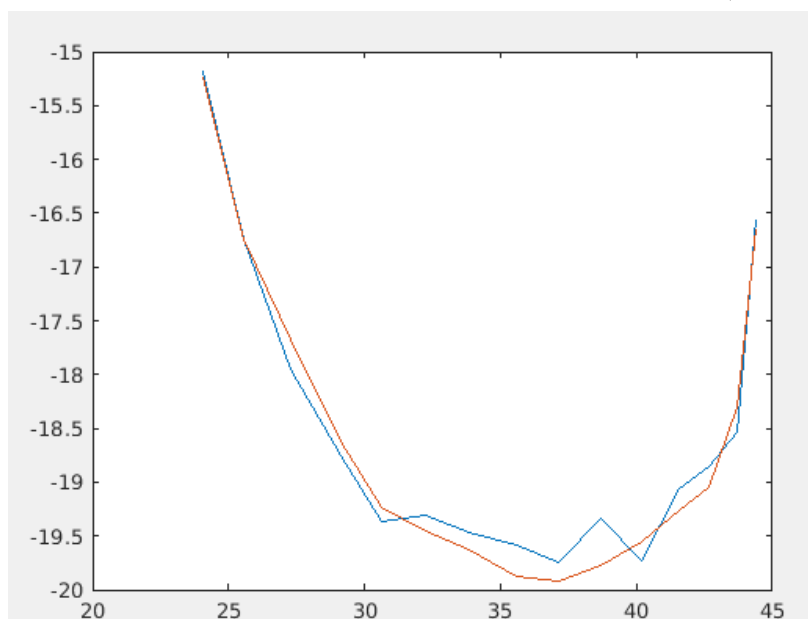
蓝线是测试集 NMSE, 红线是用训练集 xTrain 测试出来的 NMSE

```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 25
```



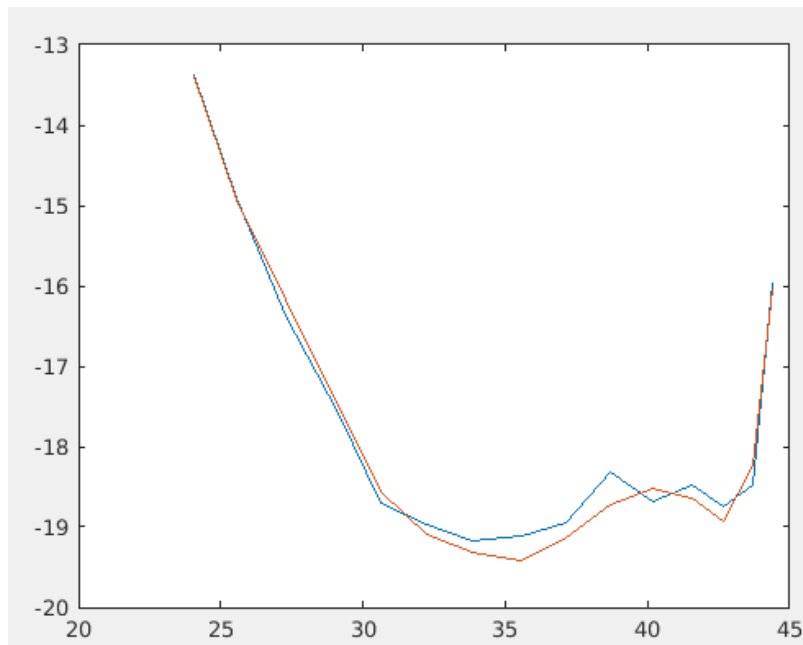
2.2 mix_amp/Threenonlinear2

```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 30
```



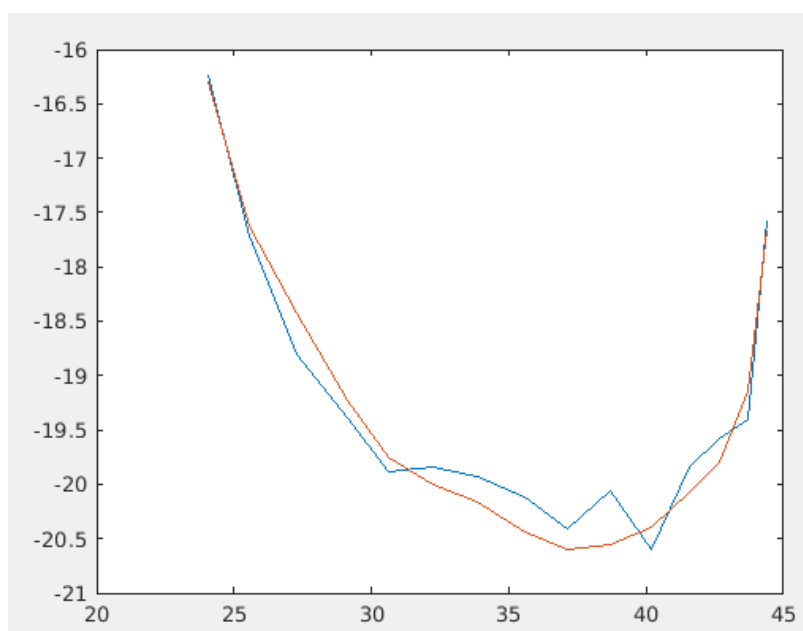
2.3 mix_amp/Threenonlinear3

```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 40
```



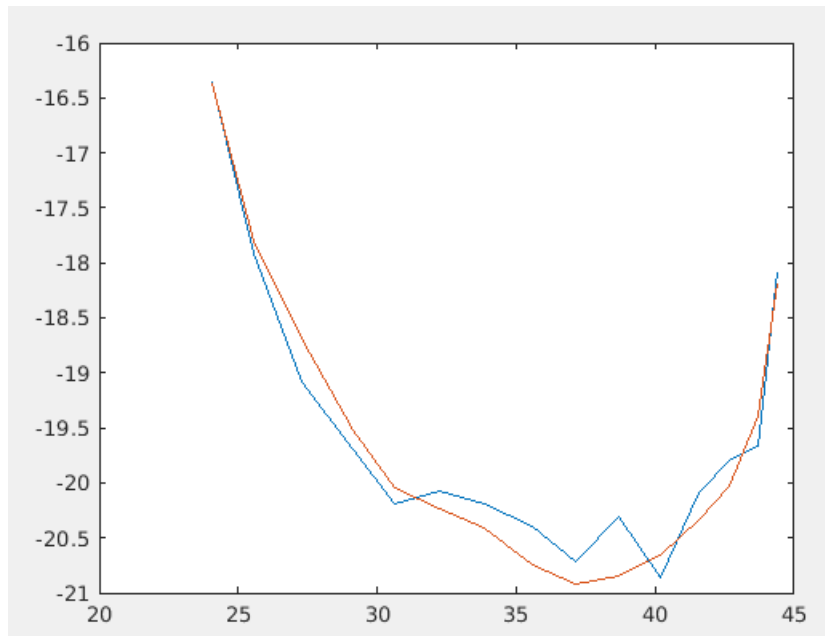
2.4 mix_amp/Threenonlinear4

```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 50
```



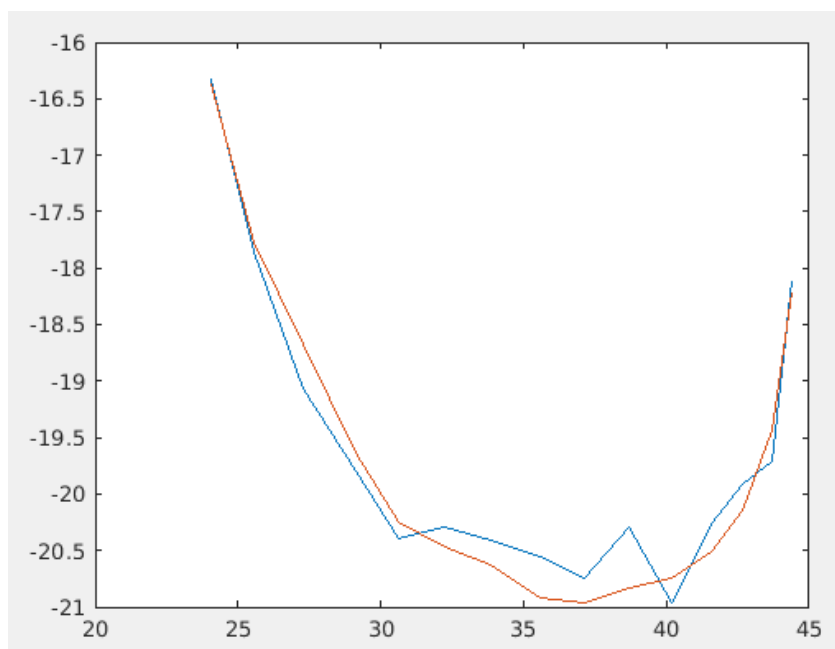
2.5 mix_amp/Threenonlinear5

```
Threenonlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 22 , amp end = 50 , amp step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 60
```



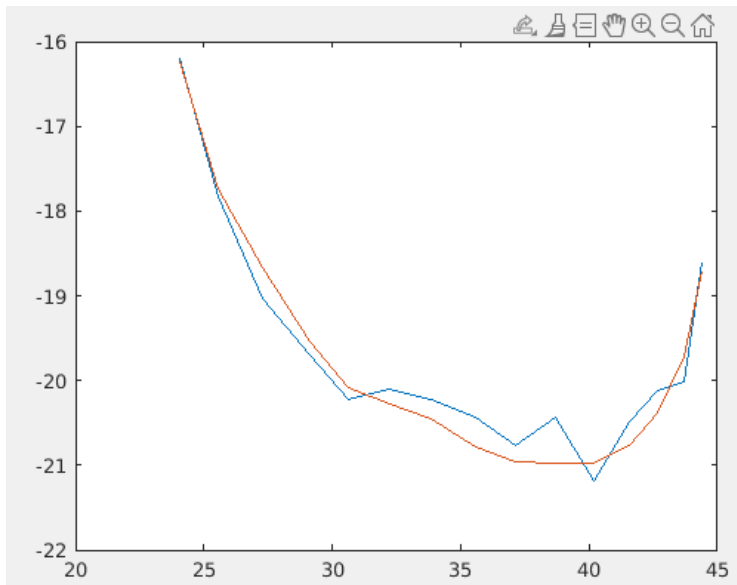
2.6 mix_amp/Threenonlinear6

```
Threenonlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 22 , amp end = 50 , amp step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 70
```



2.7 mix_amp/Threenonlinear7

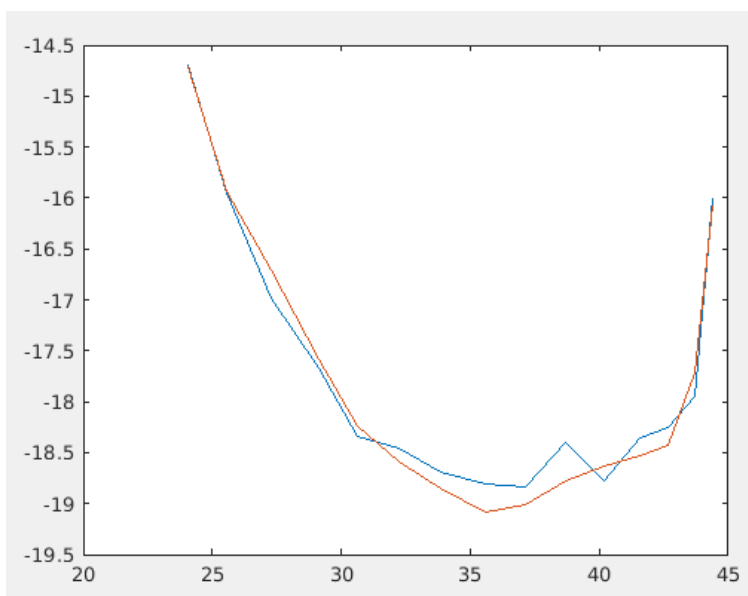
```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 80
```



3.1 mix_amp/Fournonlinear1 (四层非线性层, 更改 Hidden Units)

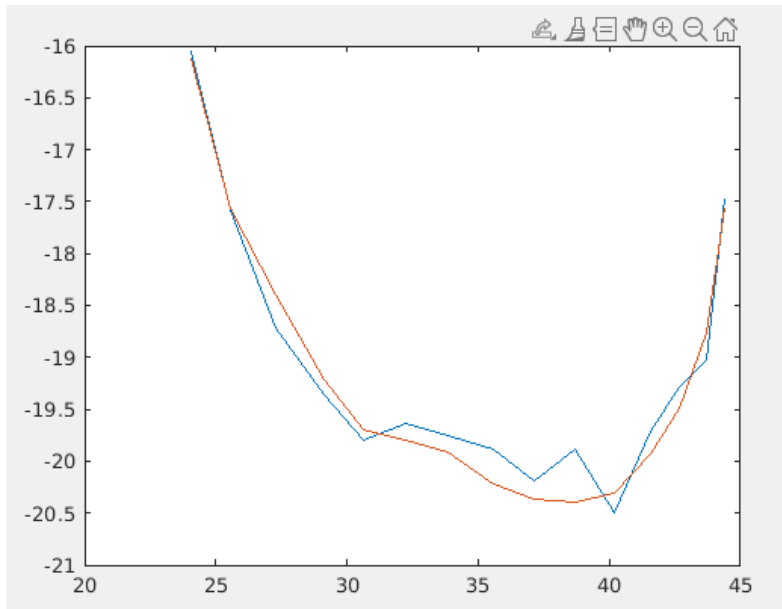
蓝线是测试集 NMSE, 红线是用训练集 xTrain 测试出来的 NMSE

```
Fournonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 25
```



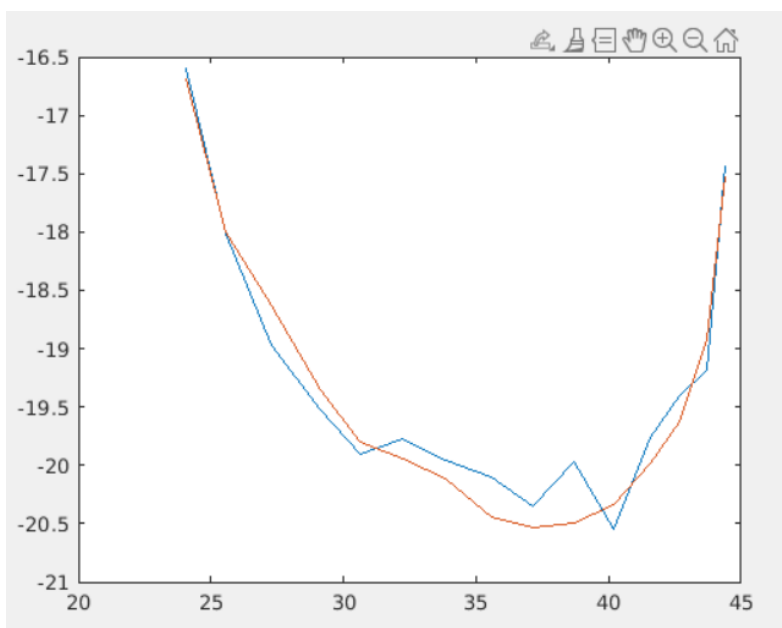
3.2 mix_amp/Fournonlinear2

```
Fournonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 30
```



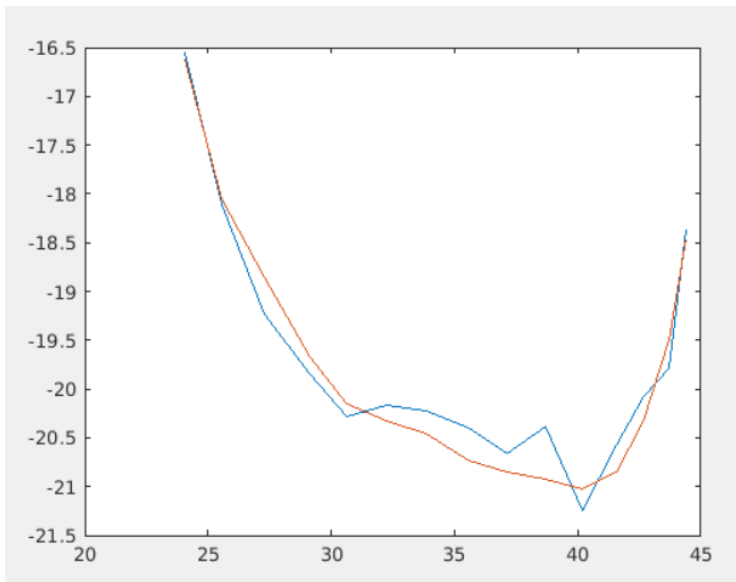
3.3 mix_amp/Fournonlinear3

```
Fournonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 40
```



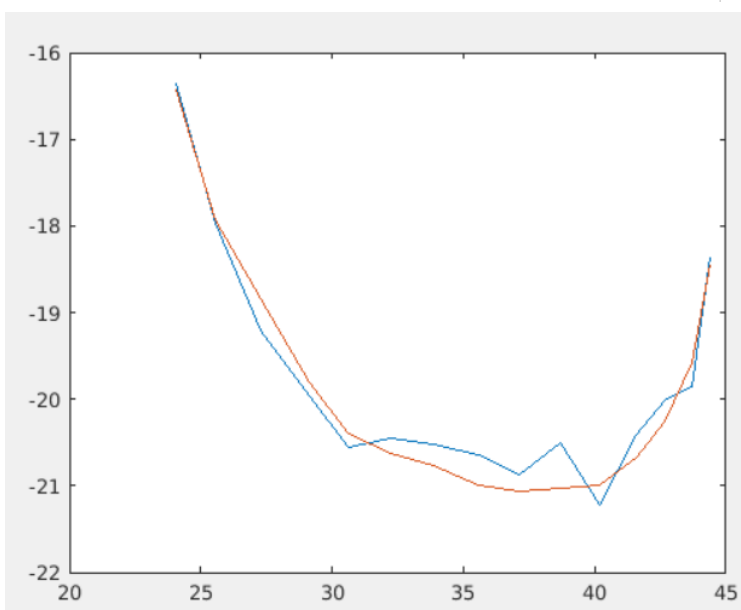
3.4 mix_amp/Fournonlinear4

```
Fournonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 50
```



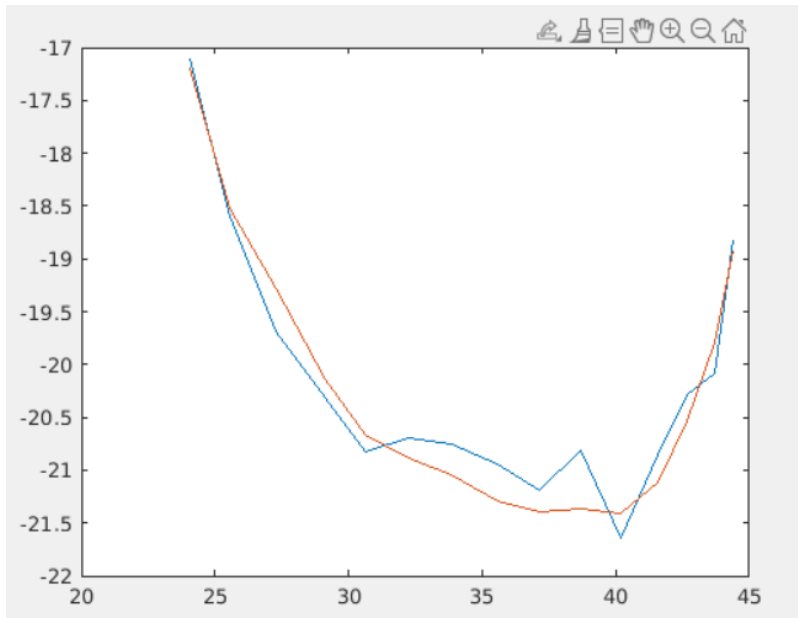
3.5 mix_amp/Fournonlinear5

```
Fournonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 60
```



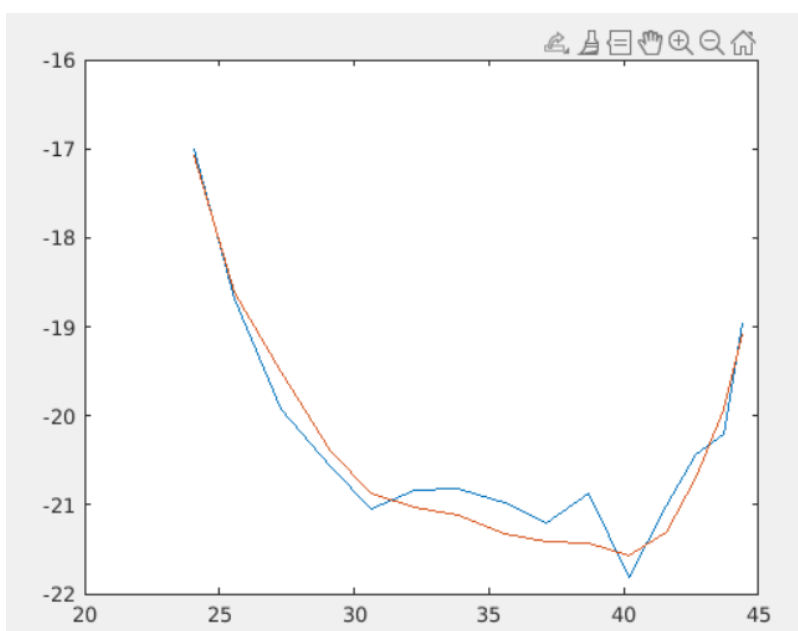
3.6 mix_amp/Fournonlinear6

```
Fournonlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 22 , amp end = 50 , amp step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 70
```



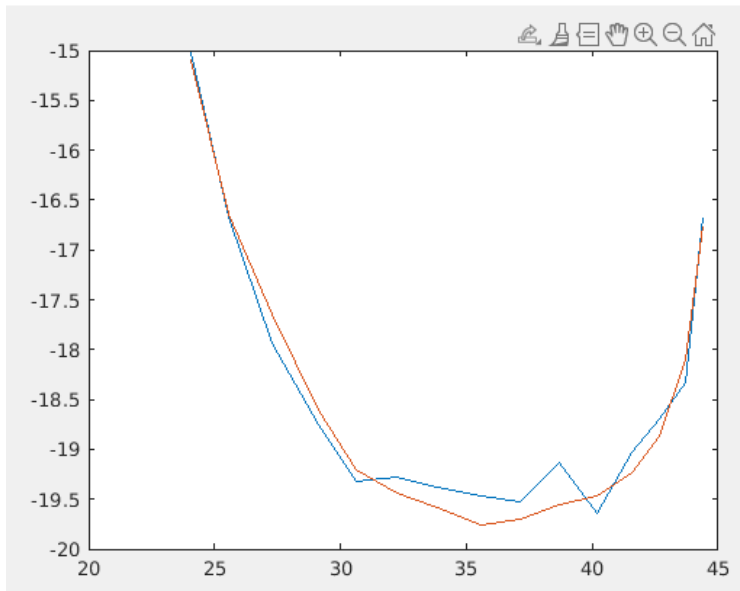
3.7 mix_amp/Fournonlinear7

```
Fournonlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 22 , amp end = 50 , amp step = 2
data_num = 100
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)
Hidden Units = 80
```



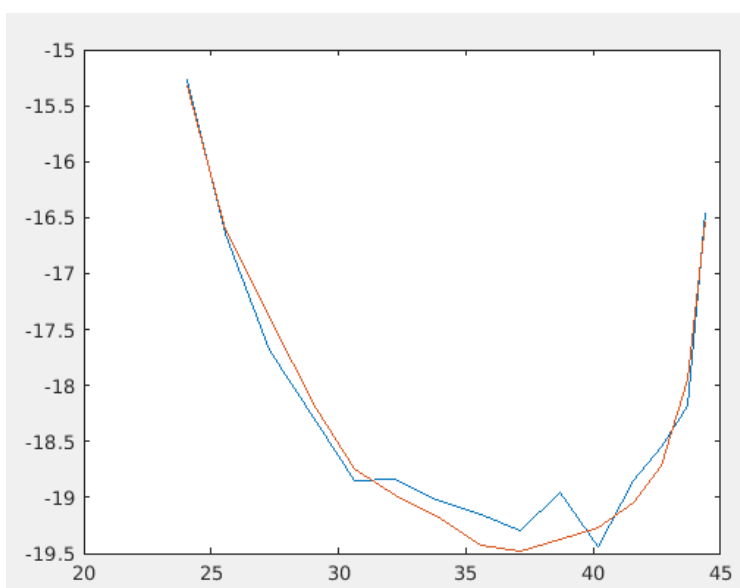
4.1 mix_amp/Fivenonlinear1 (五层非线性层, 更改 Hidden Units)

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 25
```



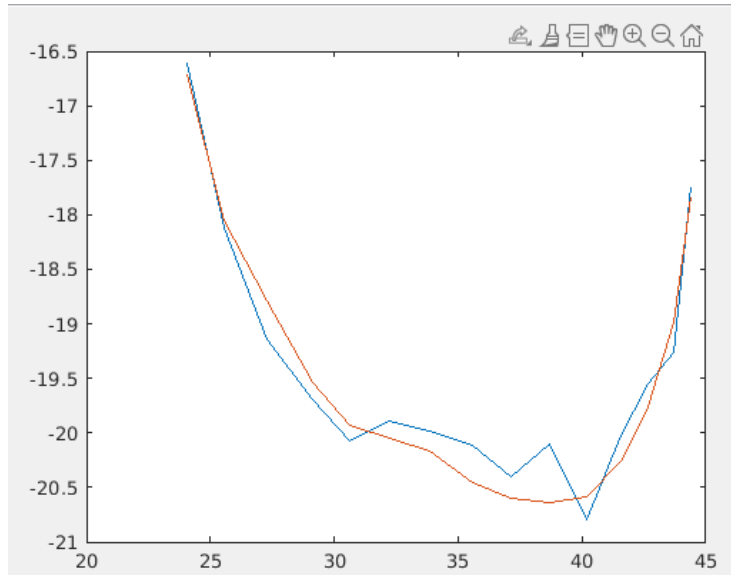
4.2 mix_amp/Fivenonlinear2

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 30
```



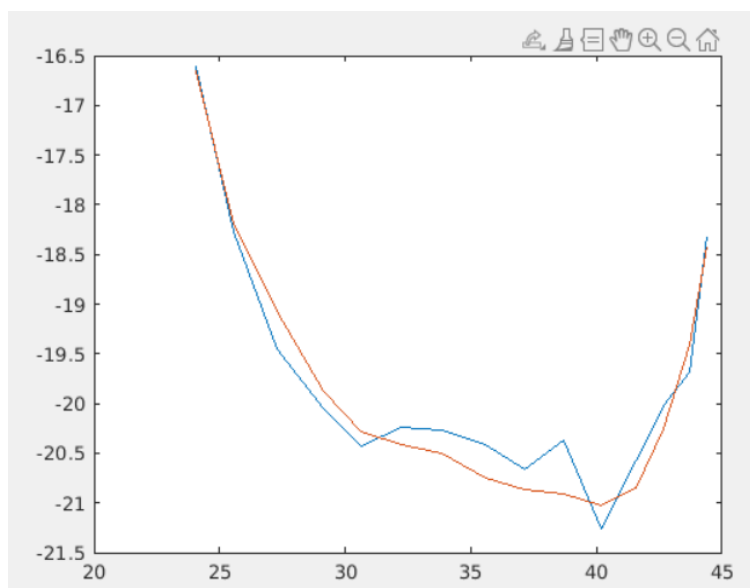
4.3 mix_amp/Fivenonlinear3

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 40
```



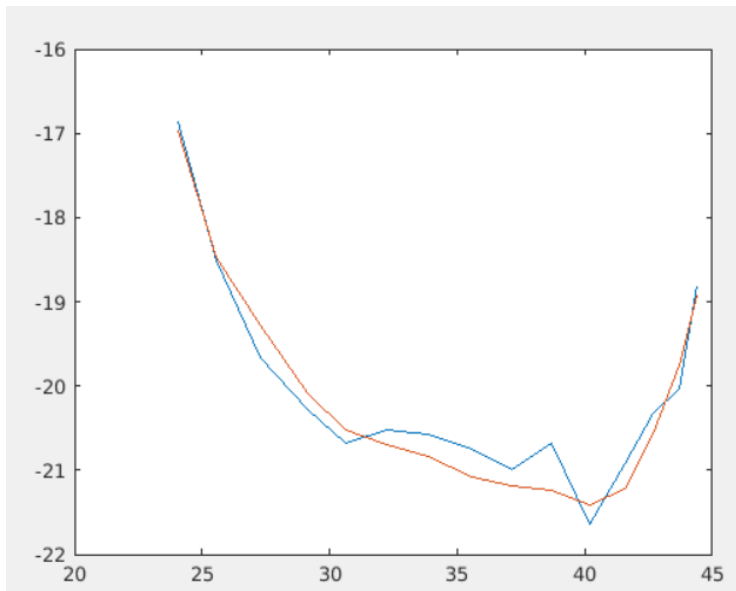
4.4 mix_amp/Fivenonlinear4

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 50
```



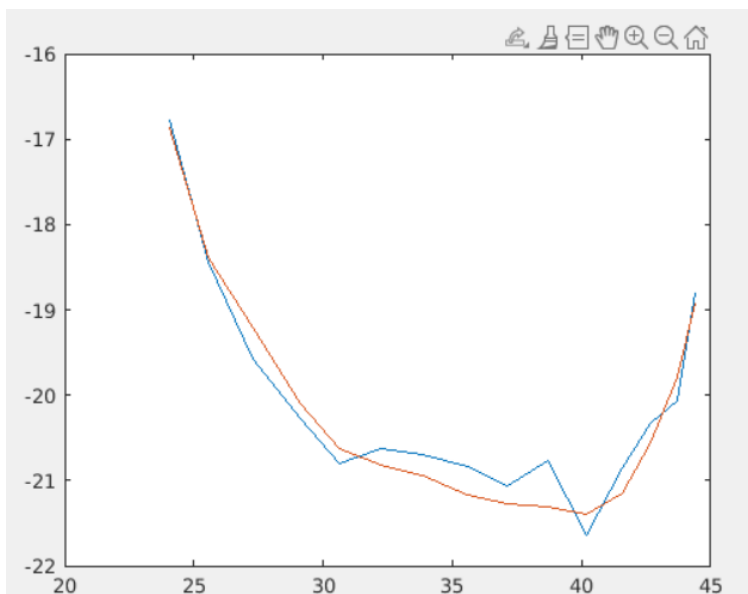
4.5 mix_amp/Fivenonlinear5

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 60
```



4.6 mix_amp/Fivenonlinear6

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 70
```



4.7 mix_amp/Fivenonlinear7

```
Fivenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 22 , amp end = 50 , amp step = 2  
data_num = 100  
validationFrequency has changed from floor(size(xTrain{1},2)/100 to floor(numel(xTrain)/miniBatchSize/5) (9 to 6)  
Hidden Units = 80
```

