

light_data_3.10/result/3.11:

(1) /rand_bias0.3: 采样率 10M, 均匀分布, 偏置电流 0.3A。

1. /norm_LS: 用 LS 算法, 求出各个幅度信号的 NMSE。之前用来生成 w 矩阵的 xTrain 的长度为 1000, 即 signal_ori 长度的十分之一。现在用来生成 w 矩阵的 xTrain 的长度为 10000, 即完整的 signal_ori。

2. /mix_amp: 混合幅度数据作为训练数据, 且数据归一化。发送信号是均匀分布的随机信号, 采样率为 10M, 偏置电流 0.3A。

2.1 /Twononlinear1:

相关符号数为 3, 即 $h_order=3*rate_times$ 。L=2, U=25

```
Twononlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 2 , amp end = 26 , amp step = 1
data_num = 100
validationFrequency is floor(numel(xTrain)/miniBatchSize/4)
H order = 18
Hidden Units = 25
```

2.2 /Twononlinear2:

相关符号数为 5, 即 $h_order=5*rate_times$ 。L=2, U=25

```
Twononlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 2 , amp end = 26 , amp step = 1
data_num = 100
validationFrequency is floor(numel(xTrain)/miniBatchSize/4)
H order = 30
Hidden Units = 25
```

2.3 /Twononlinear3:

相关符号数为 8, 即 $h_order=8*rate_times$ 。L=2, U=25

```
Twononlinear ,
ini learningRate = 1.000000e-02 ,
min batch size = 400 ,
DropPeriod = 5 ,
DropFactor = 0.100000 ,
amp begin = 2 , amp end = 26 , amp step = 1
data_num = 100
validationFrequency is floor(numel(xTrain)/miniBatchSize/4)
H order = 48
Hidden Units = 25
```

2.4 /Twononlinear4:

相关符号数为 10, 即 $h_order=10*rate_times$ 。L=2, U=25

```
Twononlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 2 , amp end = 26 , amp step = 1  
data_num = 100  
validationFrequency is floor(numel(xTrain)/miniBatchSize/4)  
H order = 60  
Hidden Units = 25
```

3. /single_amp: 单一幅度数据作为训练数据, 且数据归一化。发送信号是均匀

分布的随机信号, 采样率为 10M, 偏置电流 0.3A。

3.1 /Threenonlinear1:

相关符号数为 8, 即 $h_order=8*rate_times$ 。L=3, U=60

```
Threenonlinear ,  
ini learningRate = 1.000000e-02 ,  
min batch size = 400 ,  
DropPeriod = 5 ,  
DropFactor = 0.100000 ,  
amp begin = 2 , amp end = 26 , amp step = 1  
data_num = 100  
validationFrequency is floor(size(xTrain{1},2)/miniBatchSize  
H order = 48  
Hidden Units = 60
```