1. 准确度测试
   1. 主导角=1，2，3
      1. 对比我们方法和 3个baseline的rmse/mae/less30
      2. 柱状图呈现结果（3个图） 表示方式。
   2. 总共9个图
   3. 选择几个经典的图，展示我们方法对结果的概率估计

——方差，均值计算通过率

主导角为1：

Ridge：

result\_MAE\_plot [111.30132809817754, 57.90079059731588, 17.273904424443664, 157.32547192624403, 66.36891834766786, 48.83213168636948, 125.82300093776868]  
#开平方  
result\_RMSE\_plot [20960.882955096586, 9982.765240790297, 638.8560937249046, 45542.85606003766, 9154.566199345067, 4739.935828936492, 27793.15565676238]  
result\_LESS10\_plot [0.1806666666666667, 0.5748, 0.8429333333333332, 0.14961111111111108, 0.3958055555555556, 0.47350000000000003, 0.19407407407407407]

MLP：

result\_MAE\_plot [98.01578503469811, 55.049662424799976, 16.55337208986829, 140.08156517100534, 59.38977094958916, 52.51621600648719,114.52690422859027]  
#要开方！ 下面这个是MSE  
result\_RMSE\_plot [18005.63240078954, 9218.374012075514, 557.7368960290847, 36385.6816289802, 7107.374069463624, 4981.291222343434, 23083.026416110777]  
result\_LESS10\_plot [0.23186666666666672, 0.6169333333333333, 0.8822666666666666, 0.18422222222222223, 0.4091111111111111, 0.38902777777777775, 0.19871604938271606]

RF：

result\_MAE\_plot [76.31960083849353, 64.89200145220647, 16.969483480553198, 161.44262969615414, 63.77078862135144, 54.28026908761689, 116.34388125814507]

result\_RMSE\_plot [10754.56969271128, 9766.493689749592, 607.504448450383, 47205.51471025095, 7381.942028740206, 5129.59672569583, 22406.457173726078]

result\_LESS10\_plot [0.27666666666666667, 0.29, 0.8772222222222222, 0.19837962962962963, 0.30752314814814813, 0.3353009259259259, 0.15925925925925927]

GP：

result\_MAE\_plot [77.28023624420166, 50.760547924041745, 16.63399624824524, 114.45212745666504, 38.33886432647705, 31.87002658843994, 71.5651798248291]  
result\_RMSE\_plot [12933.08203125, 8276.563264465332, 568.4475341796875, 27347.8193359375, 3888.9388427734375, 2834.46630859375, 15377.767578125]  
result\_LESS10\_plot [0.3592, 0.6354666666666667, 0.8810666666666667, 0.2608333333333333, 0.5881944444444445, 0.6548611111111111, 0.45444444444444443]

MAE=[26.10738182067871, 30.676011721293133, 15.985563112894695,26.801708857218426, 20.03329086303711, 14.917869567871094,]

RMSE=[ 2938.4017333984375, 4245.41796875, 692.3756103515625,2975.7457682291665, 2902.247517903646, 1505.702901204427,]

LESS30=[ 0.736, 0.7733333333333333, 0.8862222222222222, 0.7411111112, 0.8322222222222222, 0.8744444444444445]

主导角为2：

pridiction siteration: 3

MAE 26.10738182067871

RMSE 2938.4017333984375

LESS10: 0.736

b17\_1 BenchMark Done.

pridiction siteration: 3

MAE 30.676011721293133

RMSE 4245.41796875

LESS10: 0.7733333333333333

b17\_2 BenchMark Done.

pridiction siteration: 3

MAE 15.985563112894695

RMSE 692.3756103515625

LESS10: 0.8862222222222222

b17\_3 BenchMark Done.

pridiction siteration: 3

MAE 26.801708857218426

RMSE 2975.7457682291665

LESS10: 0.7411111112

b18\_1 BenchMark Done.

pridiction siteration: 3

MAE 20.03329086303711

RMSE 2902.247517903646

LESS10: 0.8322222222222222

b18\_2 BenchMark Done.

pridiction siteration: 3

MAE 14.917869567871094

RMSE 1505.702901204427

LESS10: 0.8744444444444445

b18\_3 BenchMark Done.

pridiction siteration: 3

MAE 46.4116096496582

RMSE 10342.621907552084

LESS10: 0.6506995884773663

b19 BenchMark Done.

主导角为3：

MAE=[25.03220558166504, 30.96916437149048, 13.892928123474121, 26.862624168395996, 15.31080675125122, 12.13123046875, 37.534955978393555]

RMSE=[3214.86865234375, 3653.075668334961, 680.8285827636719, 2275.4160766601562, 1211.0187377929688, 808.1890319824219, 6435.6198730468755]

LESS30=[0.7906666666666666, 0.8146666666666667, 0.8946666666666667, 0.5419444444444445, 0.8611111111111112, 0.9005555555555556，0.6871604938271605]

**修复less30的bug**

one\_LESS10 = LESS10 / (data\_target.shape[0] \* (data\_target.shape[1]) \* test\_size) # 乘以 test\_size

pridiction siteration: 2

MAE 25.03220558166504

RMSE 3214.86865234375

LESS10: 0.7906666666666666

b17\_1 BenchMark Done.

pridiction siteration: 2

MAE 30.96916437149048

RMSE 3653.075668334961

LESS10: 0.8146666666666667

b17\_2 BenchMark Done.

pridiction siteration: 2

MAE 13.892928123474121

RMSE 680.8285827636719

LESS10: 0.8946666666666667

b17\_3 BenchMark Done.

pridiction siteration: 2

MAE 26.862624168395996 41.87

RMSE 2275.4160766601562 4348

LESS10: 0.5419444444444445

b18\_1 BenchMark Done.

pridiction siteration: 2

MAE 15.31080675125122

RMSE 1211.0187377929688

LESS10: 0.8611111111111112

b18\_2 BenchMark Done.

pridiction siteration: 2

MAE 12.13123046875

RMSE 808.1890319824219

LESS10: 0.9005555555555556

b18\_3 BenchMark Done.

pridiction siteration: 2

MAE 37.534955978393555

RMSE 6435.6198730468755

LESS10: 0.6871604938271605

b19 BenchMark Done.

1. 转移学习测试
   1. 主测试
      1. 使用迭代的3个STA matrix
      2. 使用2 个STA matrix作为训练数据，
      3. 从0列开始，每次加入一整列直到最后一列，对比各个方法的准确率
      4. 生成2张图，每个图代表一个设计电路
      5. 同样的图，展示我们方法对结果的概率估计
   2. 如果 “转移学习测试“效果不好，第3个STA matrix 可提供部分数据作为预测。
   3. 如果还是效果不好，改为预测1，2，3同时部分缺失数据

B19数据

One\_Corner:

result\_MAE\_plot [81.5212345123291, 83.95445442199707, 82.59679794311523]

result\_RMSE\_plot [13271.770263671875, 12291.131103515625, 12512.67041015625]

result\_LESS10\_plot [0.3108641975308642, 0.26123456790123456, 0.27]

server2:

result\_MAE\_plot [80.86003684997559, 86.6246566772461, 83.61038589477539]

result\_RMSE\_plot [12787.154052734375, 13066.282470703125, 12913.955078125]

result\_LESS10\_plot [0.31074074074074076, 0.2562962962962963, 0.2653086419753086]

two\_Corner

result\_MAE\_plot [45.00798797607422, 56.1288948059082, 57.16481908162435]

result\_RMSE\_plot [6732.477376302083, 7745.037923177083, 7640.37548828125]

result\_LESS10\_plot [0.5853497942386832, 0.44098765432098763, 0.4434567901234568]

server2:

result\_MAE\_plot [46.46817525227865, 55.47981389363607, 56.5483283996582]

result\_RMSE\_plot [7605.8154296875, 6952.347330729167, 7783.005859375]

result\_LESS10\_plot [0.5790946502057613, 0.420082304526749, 0.4566255144032922]

three\_Corner

result\_MAE\_plot [41.622737884521484, 43.71679878234863, 46.525535583496094]

result\_RMSE\_plot [6304.01416015625, 6006.618896484375, 9264.96337890625]

result\_LESS10\_plot [0.6303703703703704, 0.5780246913580247, 0.6308641975308642]

server2:

result\_MAE\_plot [42.2336311340332, 43.207584381103516, 46.43782997131348]

result\_RMSE\_plot [7179.345458984375, 6083.227783203125, 9039.22509765625]

result\_LESS10\_plot [0.6355555555555555, 0.5930864197530864, 0.6325925925925926]