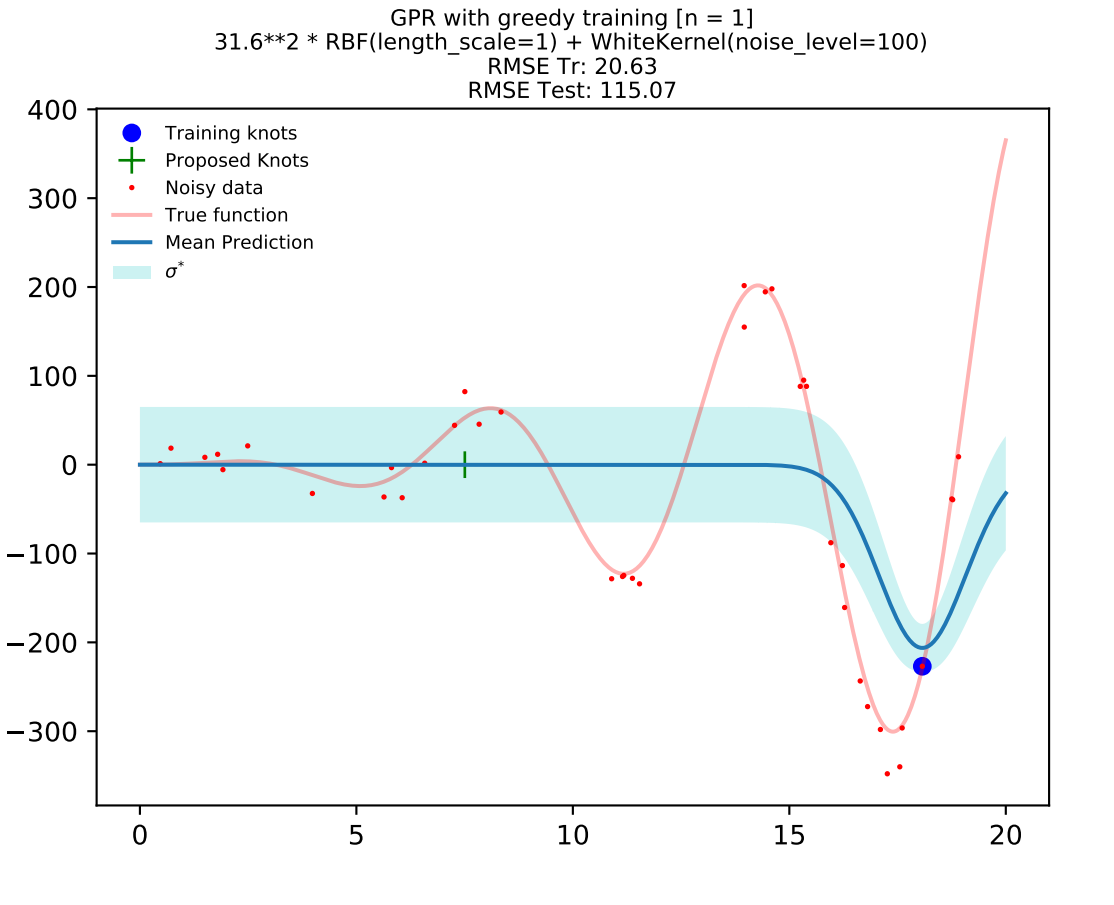
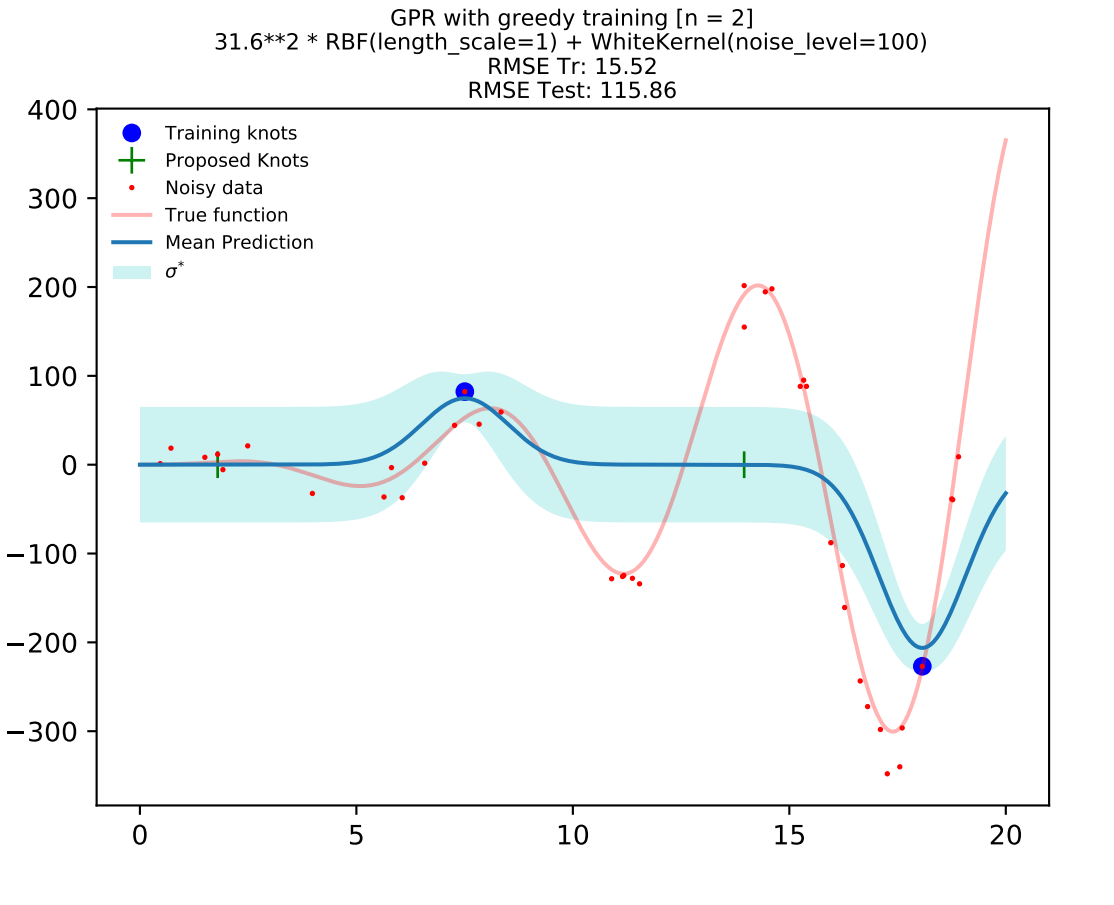
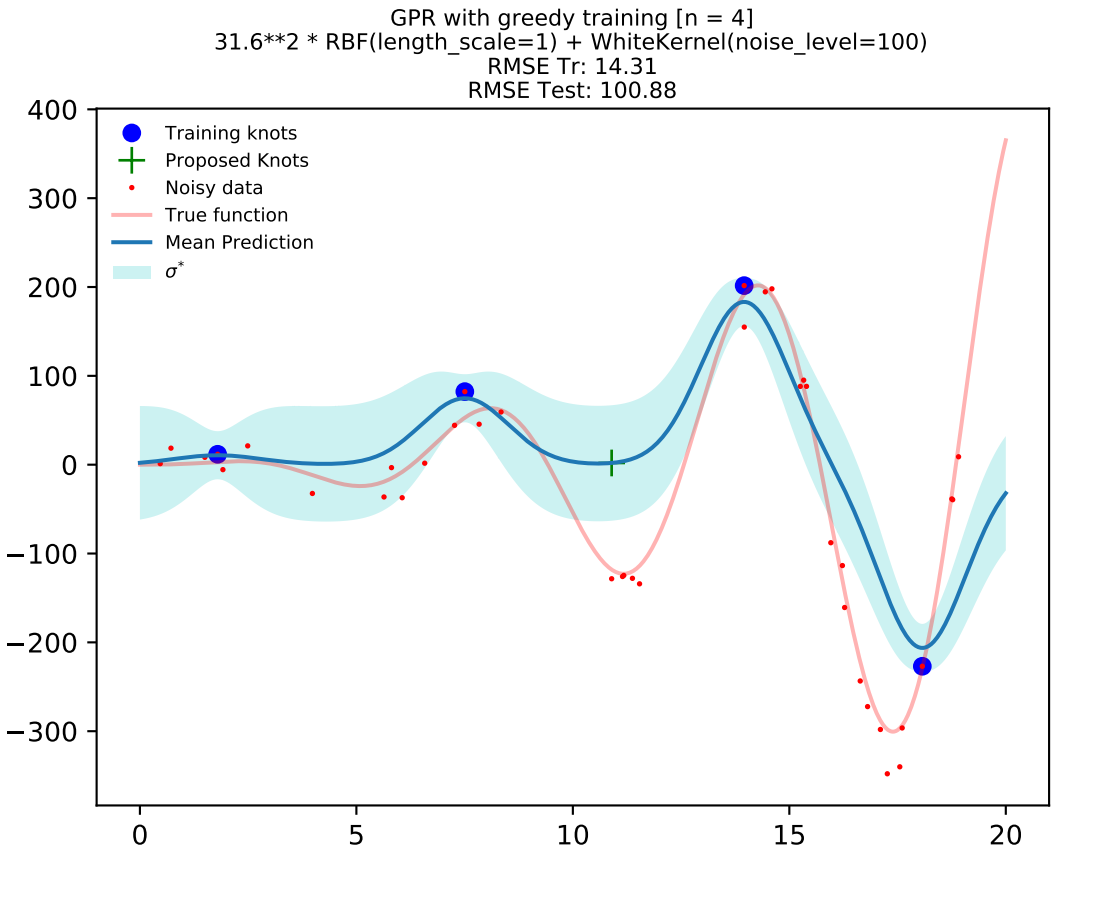
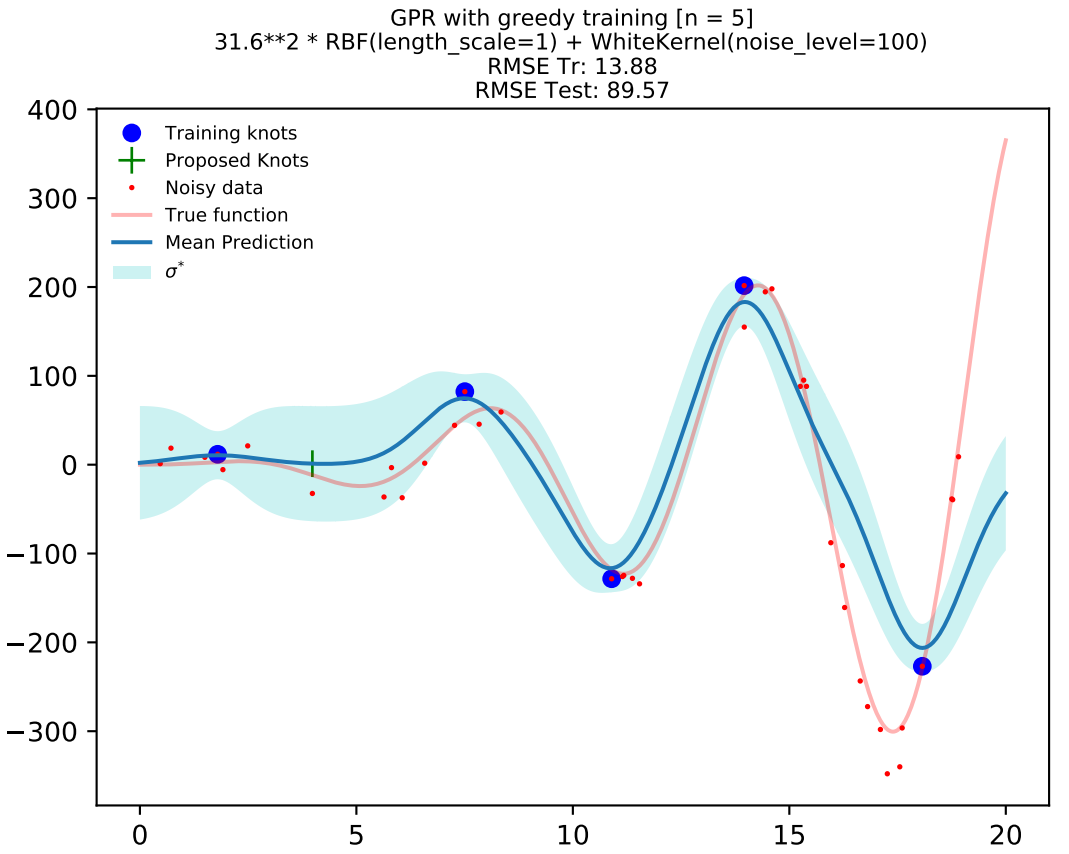
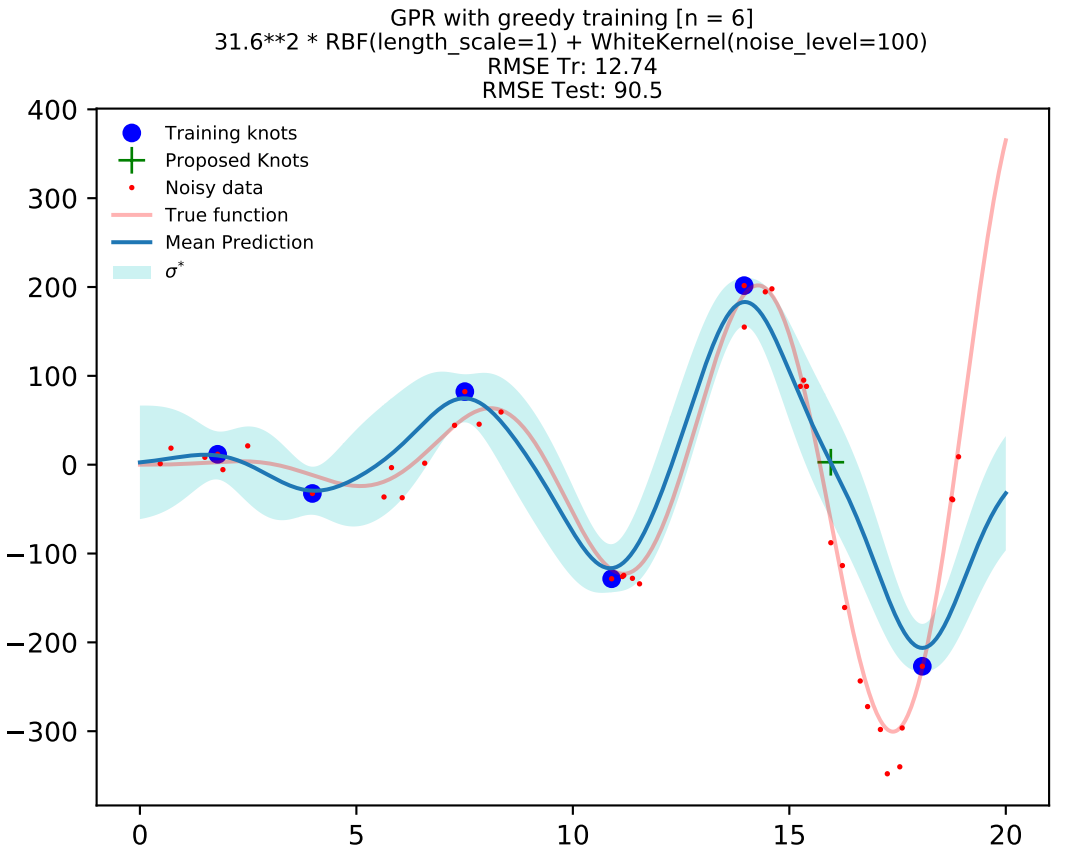
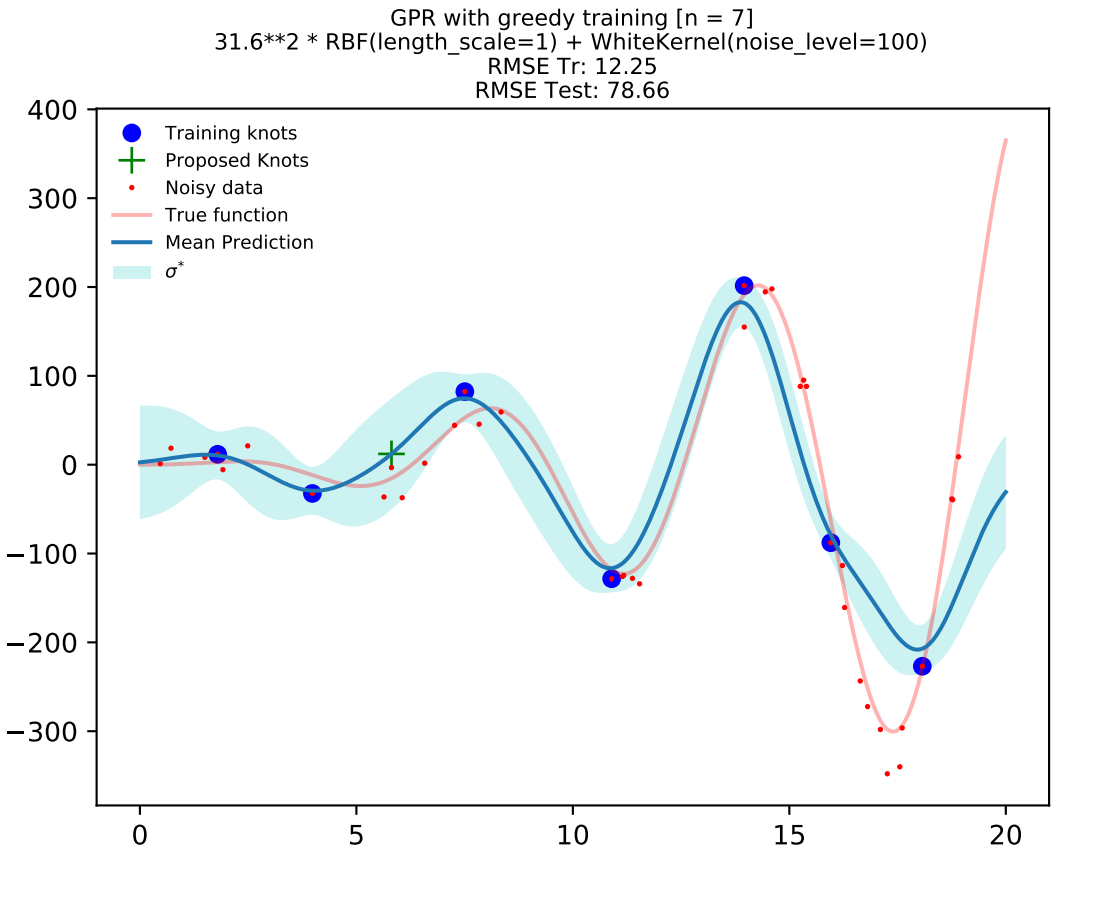

GPR with greedy training [n = 1]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 20.63
RMSE Test: 115.07
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

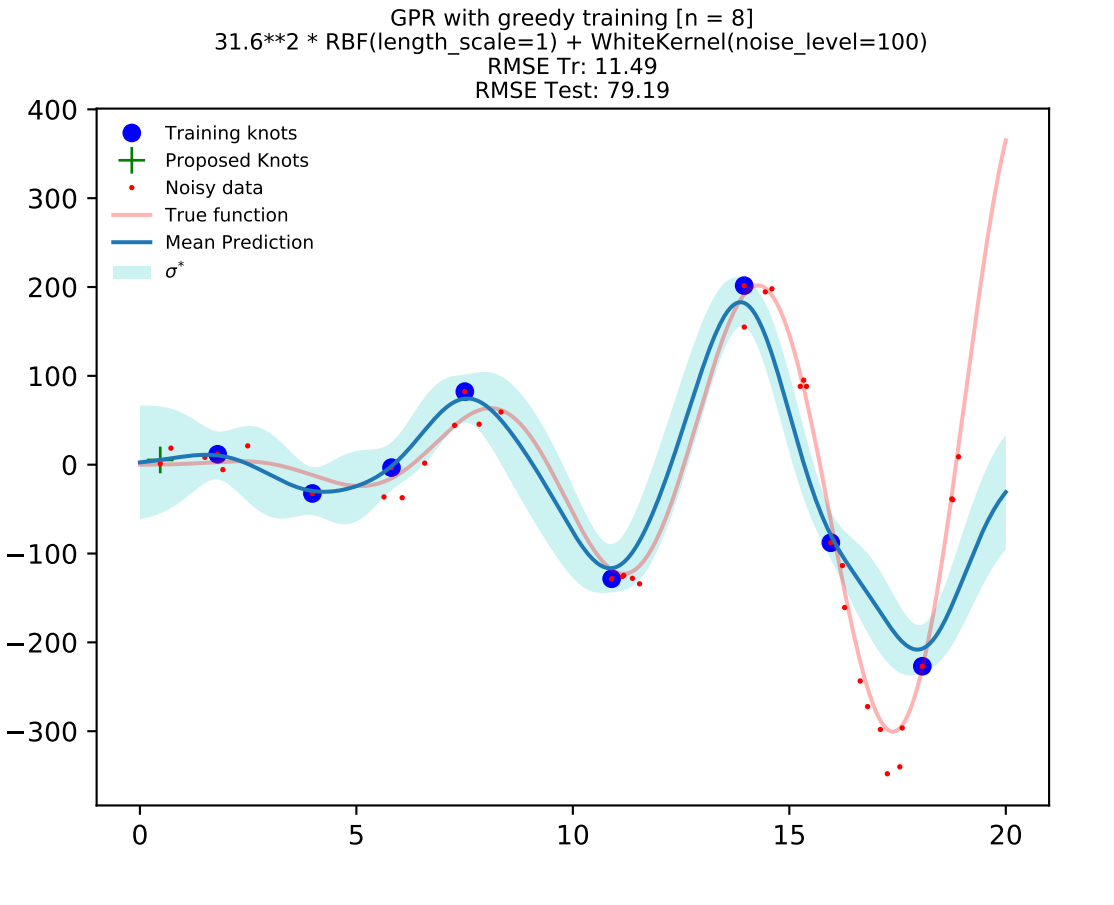

GPR with greedy training [n = 2]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 15.52
RMSE Test: 115.86
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

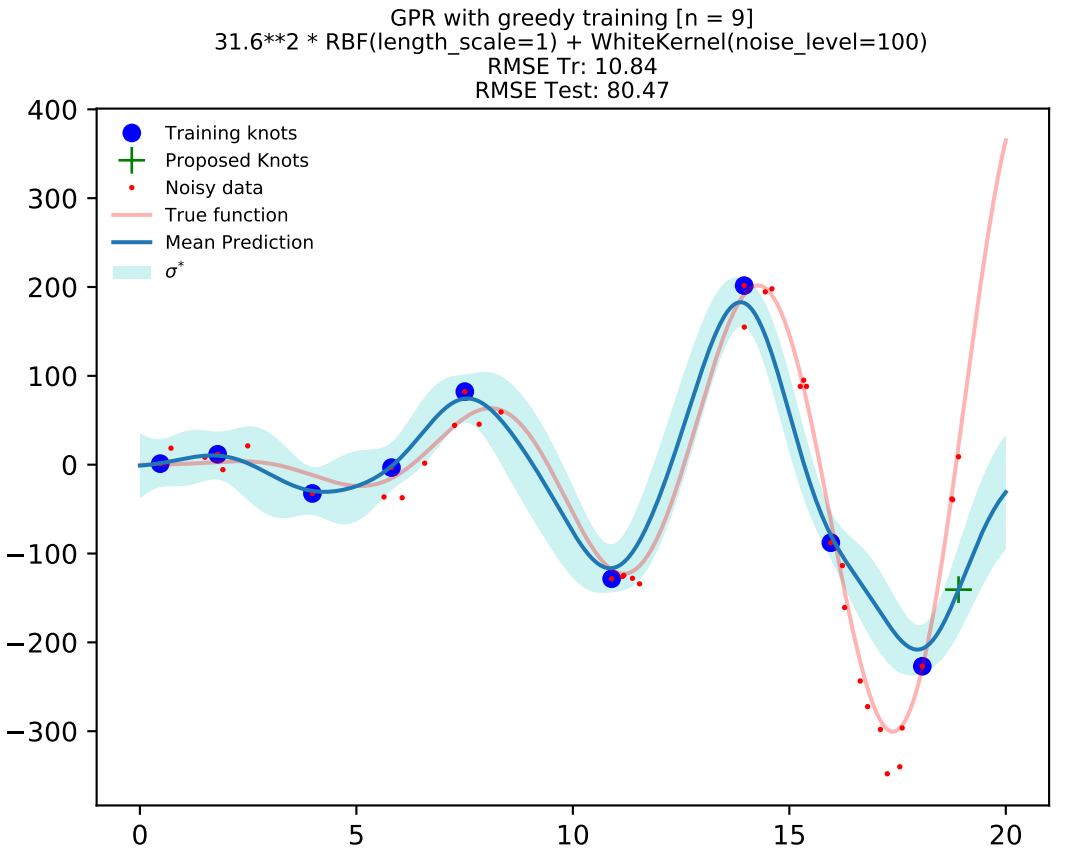

GPR with greedy training [n = 4]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 14.31
RMSE Test: 100.88
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

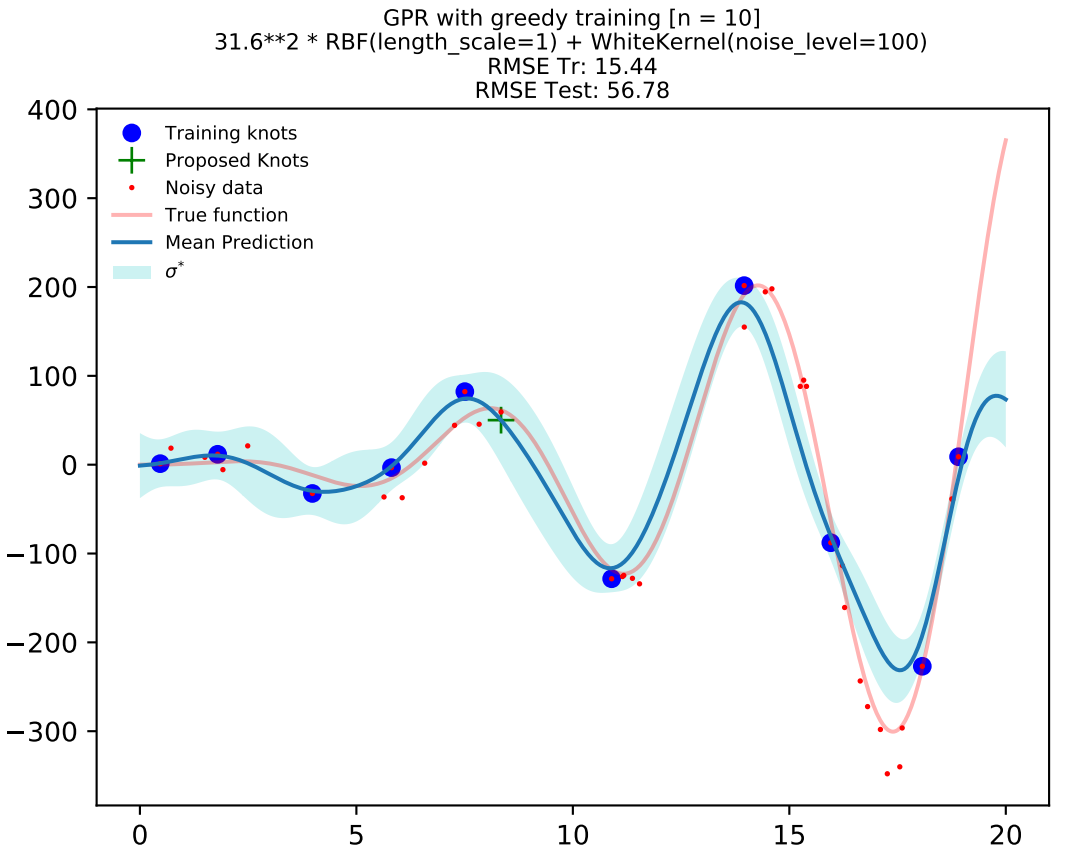

GPR with greedy training [n = 5]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 13.88
RMSE Test: 89.57
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

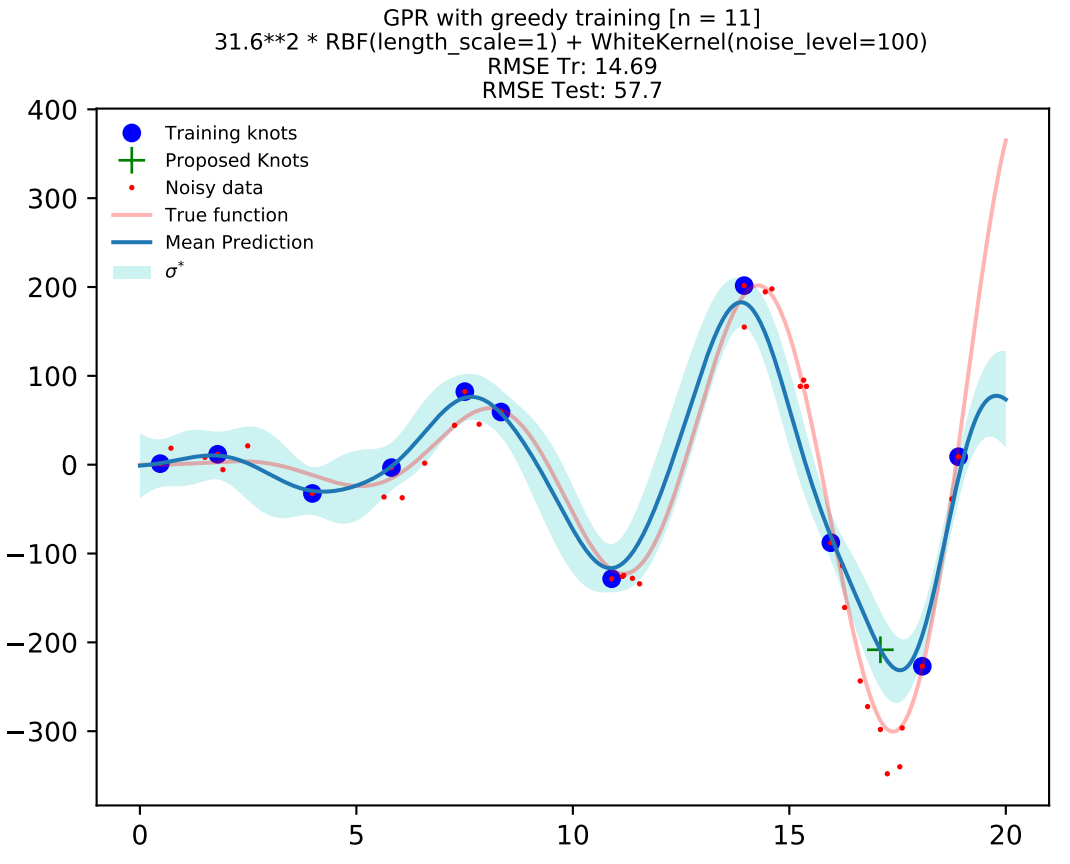

GPR with greedy training [n = 6]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 12.74
RMSE Test: 90.5
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

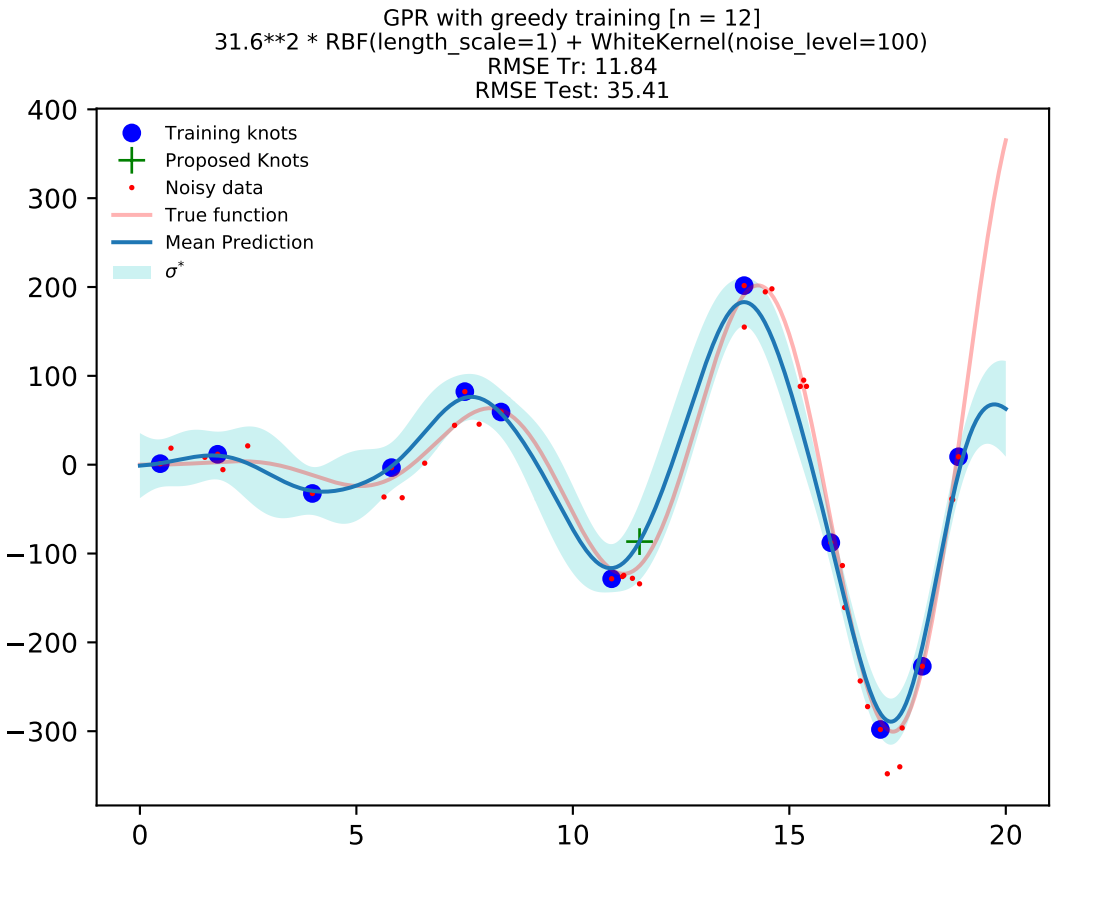

GPR with greedy training [n = 7]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 12.25
RMSE Test: 78.66
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

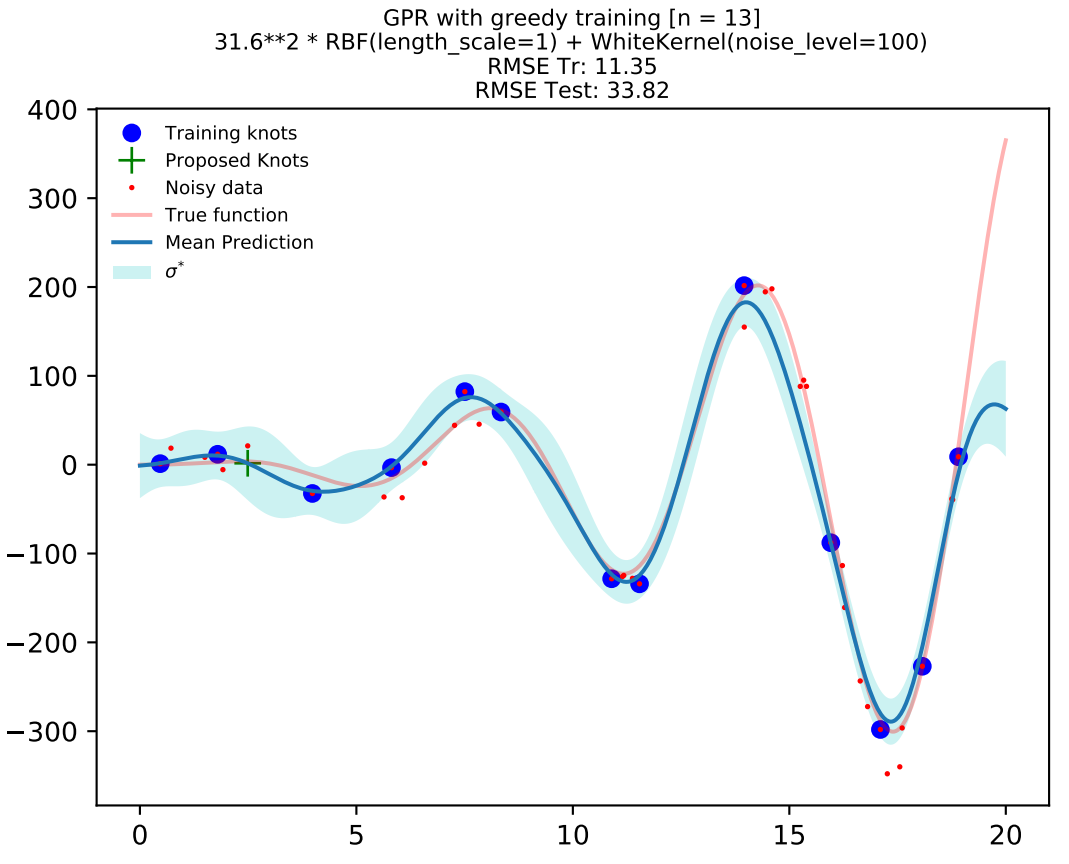

GPR with greedy training [n = 8]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 11.49
RMSE Test: 79.19
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

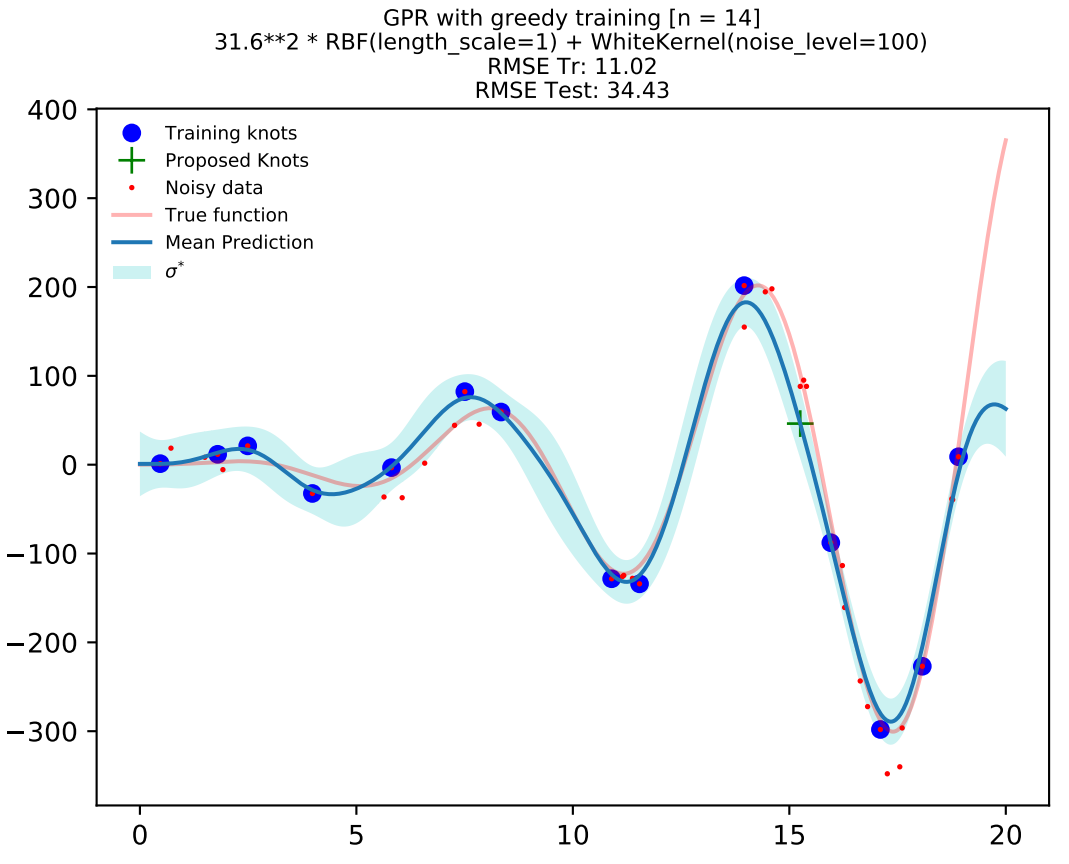

GPR with greedy training [n = 9]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.84
RMSE Test: 80.47
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

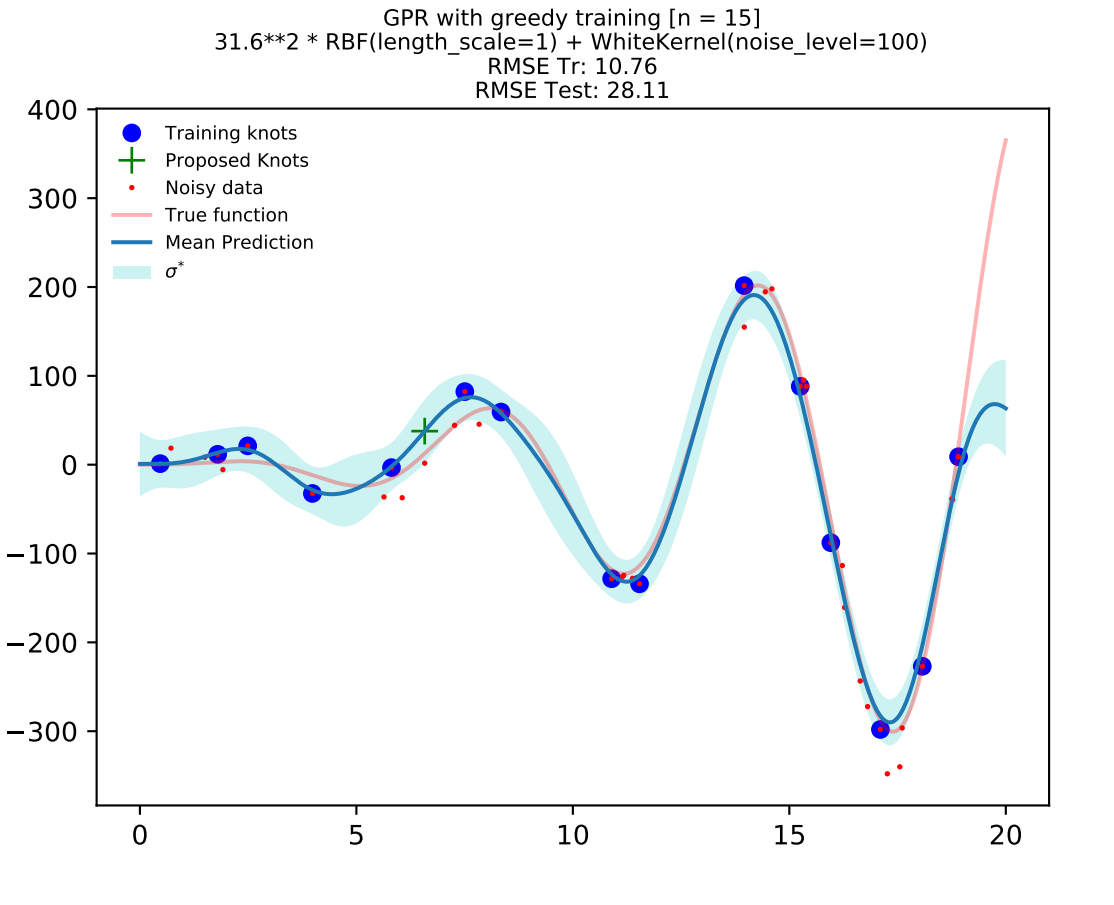

GPR with greedy training [n = 10]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 15.44
RMSE Test: 56.78
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

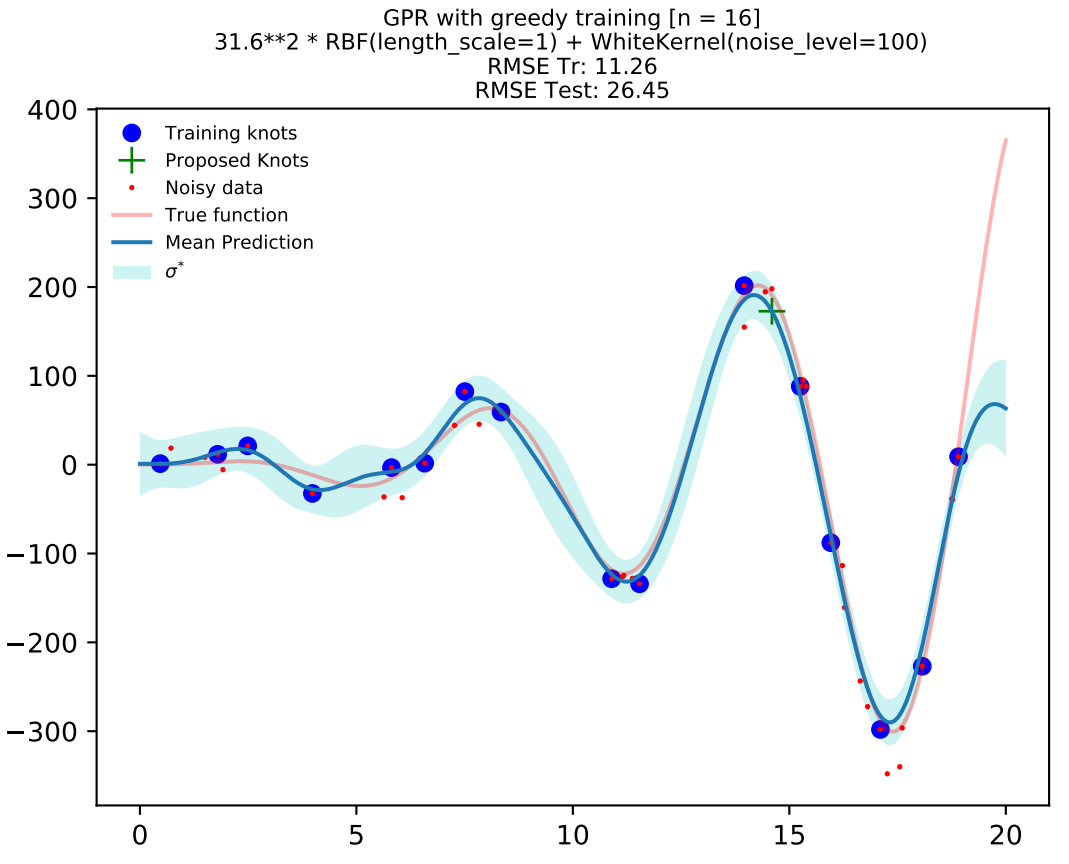

GPR with greedy training [n = 11]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 14.69
RMSE Test: 57.7
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

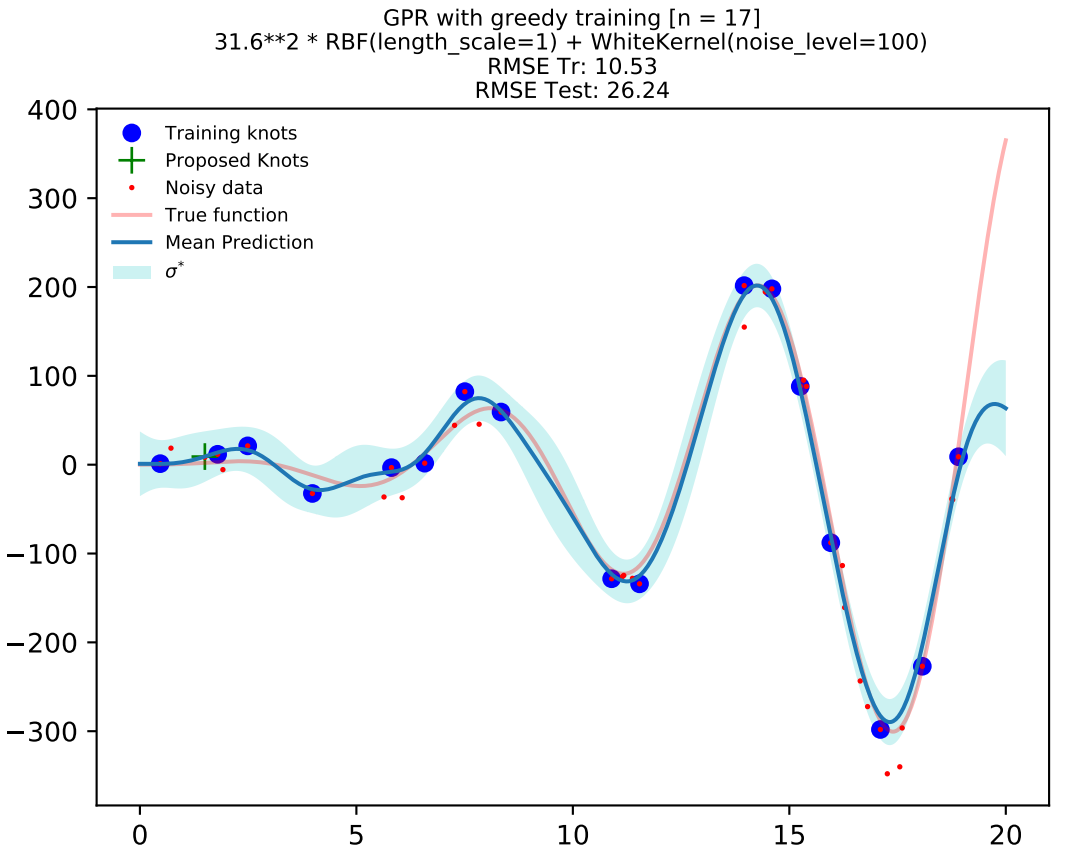

GPR with greedy training [n = 12]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 11.84
RMSE Test: 35.41
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

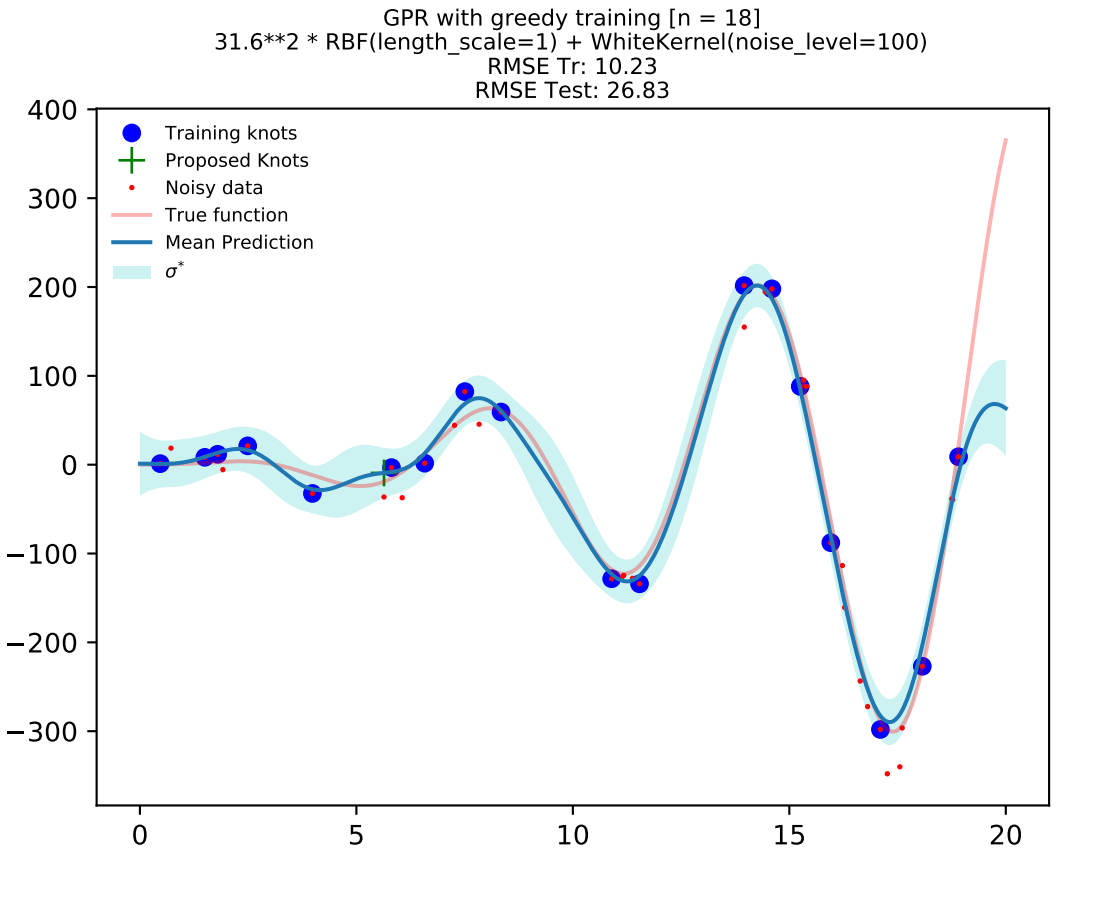

GPR with greedy training [n = 13]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 11.35
RMSE Test: 33.82
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

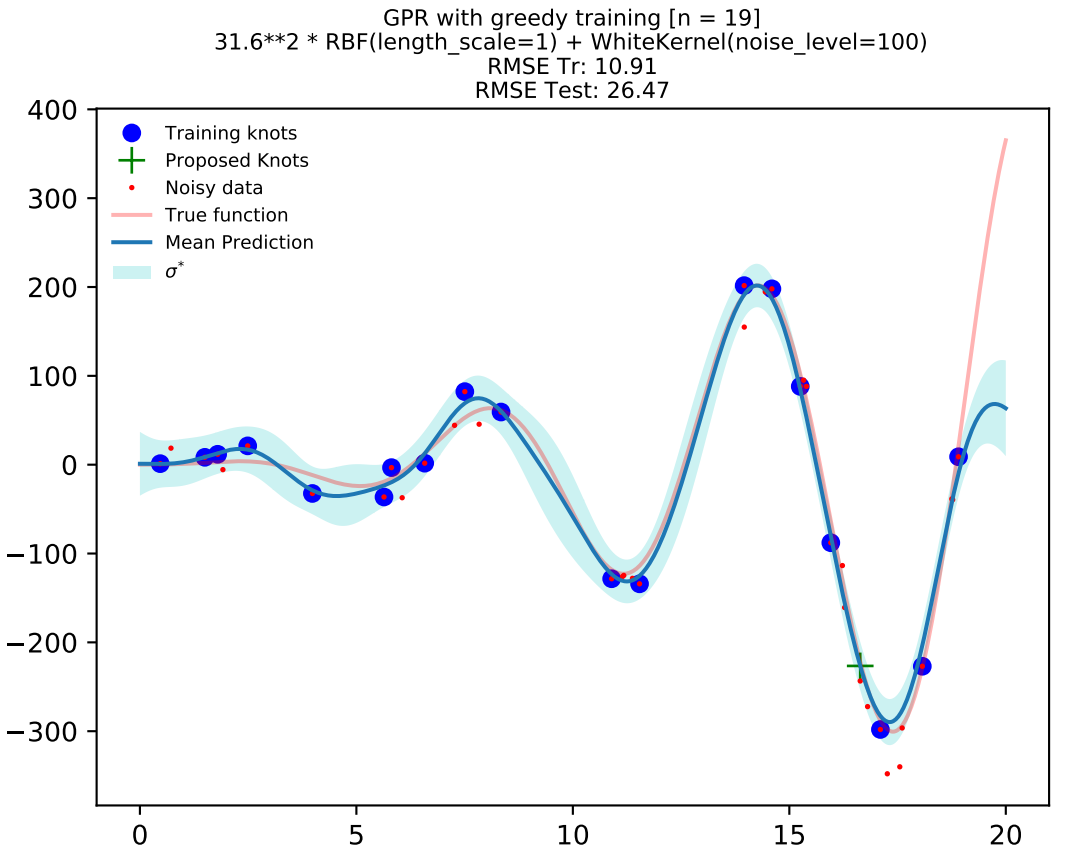

GPR with greedy training [n = 14]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 11.02
RMSE Test: 34.43
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

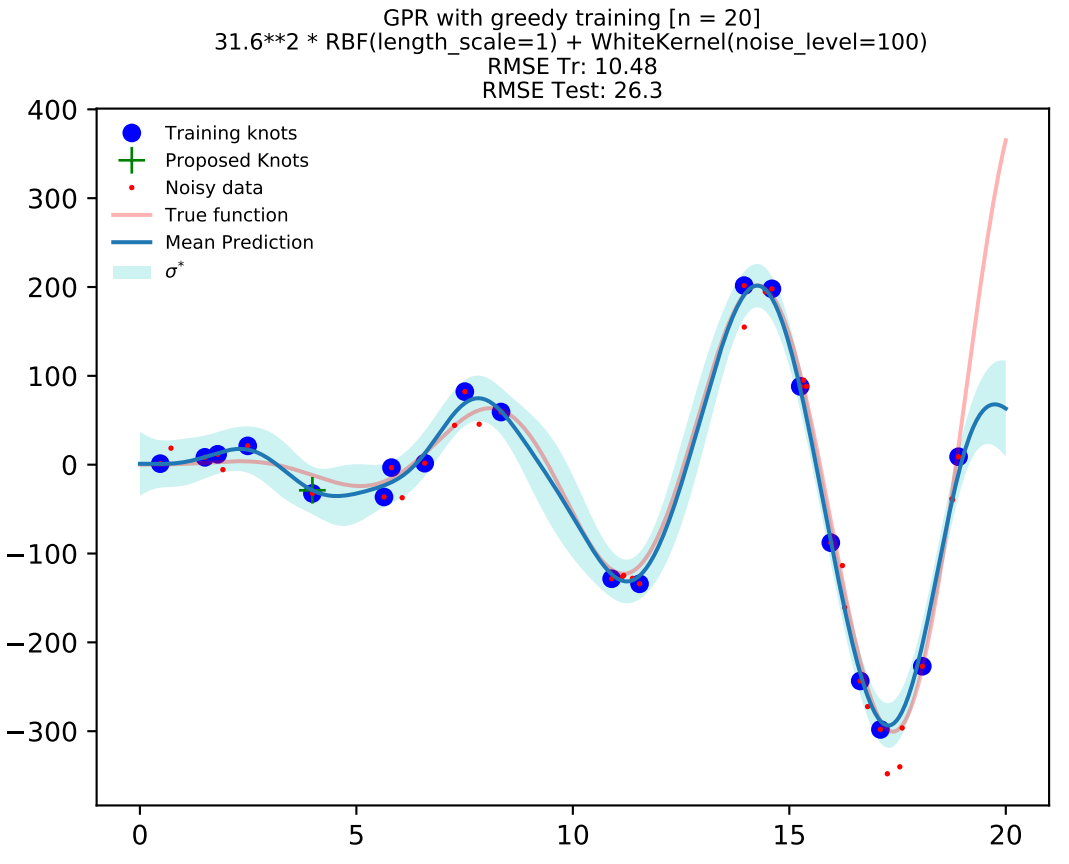

GPR with greedy training [n = 15]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.76
RMSE Test: 28.11
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20

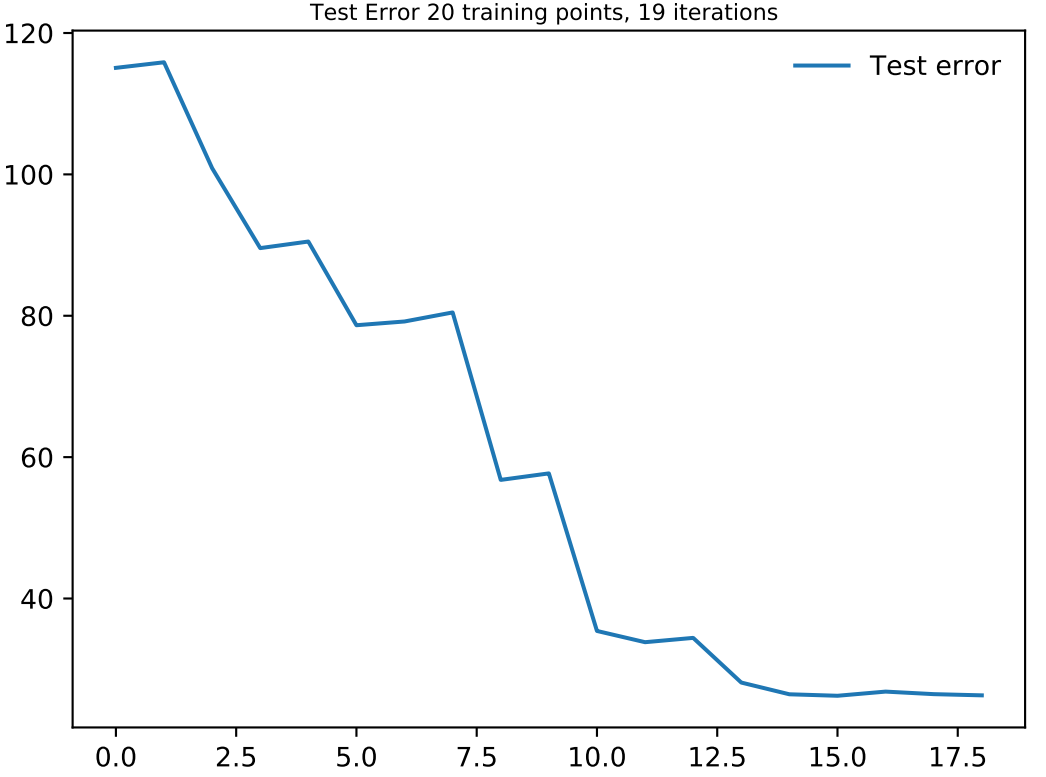

GPR with greedy training [n = 16]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 11.26
RMSE Test: 26.45
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20


GPR with greedy training [n = 17]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.53
RMSE Test: 26.24
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20


GPR with greedy training [n = 18]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.23
RMSE Test: 26.83
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20


GPR with greedy training [n = 19]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.91
RMSE Test: 26.47
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20


GPR with greedy training [n = 20]
31.6**2 * RBF(length_scale=1) + WhiteKernel(noise_level=100)
RMSE Tr: 10.48
RMSE Test: 26.3
Training knots
Proposed Knots
Noisy data
True function
Mean Prediction
σ^*
400
300
200
100
0
−100
−200
−300
0
5
10
15
20


Test Error 20 training points, 19 iterations
Test error
120
100
80
60
40
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5